



ANNUAL REPORT
OF THE
Fruit Growers' Association
OF
ONTARIO
1917

FORTY-NINTH ANNUAL REPORT
OF THE
Fruit Growers' Association
OF
Ontario
1917

(PUBLISHED BY THE ONTARIO DEPARTMENT OF AGRICULTURE)

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:
Printed by A. T. WILGRESS, Printer to the King's Most Excellent Majesty

1918

Printed by
WILLIAM BRIGGS,
Corner Queen & John Sts.,
Toronto.

His Honour SIR JOHN STRATHEARN HENDRIE, C.V.O., a Lieutenant-Colonel in the Militia of Canada, etc., etc., etc.

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to present herewith for your consideration the Forty-ninth Report of the Fruit Growers' Association of Ontario for the year 1917. ` ` `

Respectfully yours,

W. H. HEARST,

Minister of Agriculture.

Toronto, 1918.

CONTENTS

	PAGE
OFFICERS AND COMMITTEE FOR 1918	5
TREASURER'S REPORT	5
ANNUAL MEETING	7
President's Address: F. A. J. SHEPPARD	7
Report of Historical Committee: A. W. PEART AND W. T. MACOUN	9
Report of New Fruits Committee: W. T. MACOUN	12
The Car Situation: G. E. MCINTOSH	14
Economical Sprays and Spraying for 1918: PROF. L. CESAR	20
The Work of the Fruit and Vegetable Committee of the Food Controller's Office: D. JOHNSON	26
The Licensing of the Fruit and Vegetable Trade: J. R. HASTINGS	30
The Apple Situation for 1918: J. G. ANDERSON	33
The Apple Shipping Associations and the 1918 Crop: F. C. HART	37
The Labor Supply in 1918 for the Fruit and Vegetable Farms: DR. W. A. RIDDELL	39
Strawberry Growing in Prince Edward County: H. LEAVENS	46
The Effect of the War on the Farm Apple Orchards: DR. A. J. GRANT	52
The Labor Situation for Fruit Farmers: MISS HARVEY	59
Proposed Changes in the Standard Eleven-Quart Basket and Apple Box: P. J. CAREY	66
Grapes, Outlook for 1918: F. G. STEWART	70
Peaches, Outlook for 1918: H. FLEMING	72
Plums, Outlook for 1918: A. ONSLOW	73
Pears, Outlook for 1918: H. T. FOSTER	75
Cherries, Outlook for 1918: W. A. MITCHELL	76
Small Fruits, Outlook for 1918: L. HARRISON	76
Report of Resolutions Committee	78

Fruit Growers' Association of Ontario

OFFICERS FOR 1918

<i>President</i>	R. W. GRIERSON, Oshawa.
<i>Vice-President</i>	J. R. HASTINGS, Winona.
<i>Secretary-Treasurer</i>	P. W. HODGETTS, Parliament Buildings, Toronto.
<i>Executive</i>	OFFICERS, together with W. F. W. FISHER, Burlington, and F. A. J. SHEPPARD, St. Catharines.
<i>Auditor</i>	D. F. CASHMAN.

DIRECTORS.

DIV. 1. R. B. WHYTE, Ottawa.	DIV. 8. F. A. J. SHEPPARD, St. Catharines.
2. E. CASSELMAN, Iroquois.	9. CHAS. HOWARD, Hagersville.
3. HOWARD LEAVENS, Bloomfield.	10. THOS. ROWLEY, Leamington.
4. J. G. WAIT, Colborne.	11. A. STEPHENSON, Longwood.
5. R. W. GRIERSON, Oshawa.	12. J. C. HARRIS, Ingersoll.
6. W. F. W. FISHER, Burlington.	13. W. MITCHELL, Clarksburg.
7. J. R. HASTINGS, Winona.	

REPRESENTATIVES TO FAIR BOARDS AND CONVENTIONS.

Canadian National: W. F. W. FISHER, Burlington.
London: ALBERT STEPHENSON, Longwood, and THOS. ROWLEY, Leamington.
Ottawa: R. W. GRIERSON, Oshawa, and R. B. WHYTE, Ottawa.

COMMITTEES.

Horticultural Publishing Company: R. B. WHYTE, Ottawa.
New Fruits: W. T. MACOUN, Ottawa; PROF. J. W. CROW, Guelph; E. F. PALMER, Vineland Station.
Historical: A. W. PEART, Burlington; W. T. MACOUN, Ottawa.

TREASURER'S REPORT, 1917

RECEIPTS.

Balance on hand, 1916.....	\$480 87
Fees, 1917	333 90
Grant	1,700 00
Miscellaneous	68 91
	<hr/>
	\$2,583 68

EXPENDITURES.

Annual meeting	\$289 97
Committees	83 45
Periodicals	150 25
Transportation	519 63
Miscellaneous	189 77
Balance on hand	1,350 61
	<hr/>
	\$2,583 68

Audited this 14th day of February, 1918,
and found correct.

D. F. CASHMAN, Auditor.

F. A. J. SHEPPARD, President.
P. W. HODGETTS, Secretary-Treasurer.

Fruit Growers' Association of Ontario

ANNUAL MEETING

The fifty-eighth annual convention of the Fruit Growers' Association of Ontario, held in Toronto, Ontario, at the Carls-Rite Hotel, on Thursday and Friday, the 14th and 15th of February, 1918.

F. A. J. SHEPPARD, St. Catharines, the President, presiding at all the sessions.

PRESIDENT'S ADDRESS.

F. A. J. SHEPPARD, ST. CATHARINES.

As President of the Ontario Fruit Growers' Association it affords me a great deal of pleasure to welcome you to this our fifty-eighth annual convention.

Since we met here in Toronto in annual convention about a year ago, our fruit growers and the citizens of the Dominion, as a whole, have passed through a strenuous year, one of the most strenuous in the history of our country, and we have been brought face to face with conditions, such as the oldest among us have never experienced and the youngest among us never dreamed could be brought about. The great world war which was raging when last we met, and which we all had hoped would be over before we met again, is still on, our common enemy the ruthless Hun is still going strong, and in spite of the peace talk the end is not yet in sight. Since last we met our American cousins of the great Republic to the south of us have cast in their lot with our Allies, and it is our most fervent hope and prayer, that the assistance which that great nation of one hundred million people will be able to render will go a long way toward hastening the time when the dove of peace will spread her gentle wings over the devastated and shell-torn battle-fields of Europe, and usher in a rightful and abiding peace to the war weary nations of the world.

We must indeed deem it a great privilege to be able to meet here to-day and discuss the problems confronting our fruit growers, without being disturbed by the worrying of aircraft or the bursting of bombs over our heads, and for these great blessings we owe a debt of gratitude to the invincible British navy, for keeping our enemies thousands of miles away from our shores.

The war has made many changes in the industrial conditions of our Dominion. All kinds of supplies and materials have greatly advanced in price, many of them being double and some treble what they were at the beginning of the war. Transportation facilities, always one of our big worries, have been demoralized. It is true the war has made a lot of money for some people, and has had the effect of putting large sums of money into circulation, and through the very large contracts for munitions and other army supplies placed with our manufacturers, a large measure of prosperity has been maintained. I am sorry to say, however, that we fruit growers have not fallen heir to our fair share of this prosperity. I maintain that the fruit growers of this Province, in 1917, have been the hardest hit of any class of our citizens. We have had to contend with a scarcity and high cost of labor on the farms, the increased price of supplies, such as spray material, spraying

machines, implements, and machinery for working the land, fertilizers, etc., increased cost of packages and last, but not least, a higher priced, but very much less efficient, system of transportation for our fruit.

While the prices of all our raw materials have soared heavenward, the price of the fruit has not risen proportionately, and the result is that a lot of our fruit growers have come out of the small end of the horn, and in some cases the last state of these men's efforts in the fruit business is worse than the first. Added to the long list of vicissitudes which I have mentioned, in the year 1917 we experienced very unfavorable weather conditions, which put the finishing touch on the business. While I have not accurate figures at hand, I am safe in stating that the apple crop of the Province of Ontario for the year 1917 was the lightest experienced for a great many years. In fact it might be termed as an almost total failure. Peaches, plums, pears, grapes, and berries also suffered heavily from the excessive rainfall which continued from early spring until the end of July. None of these fruits averaged over 50 per cent. of a crop, and some varieties were as low as 15 per cent. Tomatoes in the Niagara Peninsula were almost a total failure, due to the wet, with the grape crop less than 60 per cent. at the best. An early frost before they were fully ripe spoiled fully one half of them for shipping or for grape juice purposes. Altogether the year just closed was a disastrous one for the fruit growers. Are we down hearted? No! We will go back at it again with faith and hope for better things in 1918.

The year just closed, during which I have had the honor of presiding over your Association, will not go down in history as a brilliant one. Your executive met in June to consider the question of advanced freight rates, and also to confer with a delegation from British Columbia concerning the apple situation there and in Nova Scotia. Mr. McIntosh, Mr. W. H. Bunting and myself appeared before the Dominion Railway Board regarding the 15 per cent. increase of freight rates, of which Mr. McIntosh will, no doubt, give you a full account. Mr. R. W. Grierson, our Vice-President, and myself were appointed by the executive to accompany the British Columbia delegates, Mr. Palmer and Mr. Barnes, to Ottawa, where in company with our Fruit Commissioner, Mr. Johnson, we were granted an interview by Sir Robert Borden and other members of his Cabinet; and discussed the distribution and marketing of apples and other fruits with them and were promised all possible assistance from the Department. At the time Mr. Palmer and Mr. Barnes left British Columbia they were not aware that the Ontario apple crop, and also the crop of Western New York, was such a complete failure, and it was this fact that enabled them, both British Columbia and Nova Scotia, to dispose of their large crop at fairly remunerative prices.

Owing to the continuance of the war it was not deemed advisable to hold the usual Fruit and Flower Show in November, which added so much to the success of our annual conventions before the war. As I stated in starting out, we are laboring under changed conditions, and to-day we are brought face to face with the most serious condition our nation could imagine, viz., a shortage of food. If any one had told us five years ago that there could ever come a famine in this Dominion of ours we would have said that they were crazy and should not be allowed to roam at large. But the food shortage in this country and all countries in the world is appalling, and is a great deal more acute than we have any idea of. Unless we wake up and put forth every energy available, not only to speed up production but to eliminate waste, if the war continues for another year or two I would not care to guarantee that we would get three square meals a day. Under existing conditions on the farm of farm labor and high cost of everything it will not

be possible for the farmers to produce much more in 1918 than they did in 1917, but we should give them every possible assistance in trying to do so! The great saving, however, must come through economic handling of what we have, and it is up to us to eliminate every particle of waste, both in food and energy, and learn to get along with less of the foods that can be transported overseas and which are so much needed by our gallant boys at the front.

Canada has done well, the farmers and the fruit growers have done well, but we must do more and bear more sacrifices if we are to carry on to the end.

The transportation problem is still likely to be our biggest worry, and we as fruit growers are deeply indebted to our transportation agent, Mr. G. E. McIntosh, for the very able work he has performed in our behalf. Our best thanks are also due our Dominion Fruit Commissioner, Mr. D. Johnson, for his untiring efforts in the cause of the fruit growers, and also for taking care of a large part of Mr. McIntosh's expenses during the last year.

I will not trespass further on your time, but in closing will urge you all as fruit growers to put forth your very best efforts to increase production or more and better fruit in 1918.

The coldest January in over fifty years, and the first week of February registering temperatures of from 15 to 30 below zero, have not yet revealed to us what fruit prospects for 1918 really are. But we must be optimistic, and go steadily forward, strong in the faith that if we do our whole duty honestly and faithfully we are bound to succeed.

I thank you for the patient hearing you have given me, and trust that the excellent addresses which you are to listen to during this convention will be both a pleasure and benefit to all present.

The Treasurer's report was then presented and before being passed the following statement was made in reference to the balance:—

THE TREASURER: You will notice that our balance is much larger than we have had for a good many years. That is accounted for very largely from the fact that at the request of the Fruit Growers' Association Mr. McIntosh was transferred to the Department of Agriculture, at Ottawa, as Transportation Agent, so that he might be able to work in a wider field for the fruit growers of the whole Dominion of Canada. Mr. McIntosh had been giving some little time to the other provinces, and the Fruit Growers' Association of Ontario had been bearing the expense, and at our Convention a year ago a resolution was passed urging on Mr. Johnson and the Minister of Agriculture that the Department should take over Mr. McIntosh and make use of his services for the fruit growers of the Dominion. This was done, with the result that our expenditure for transportation work was cut more than in two, and in that way we have a larger surplus this year.

It was too late in the year for the Executive to make any plans for spending the money they had on hand at that time, and that is something that the Association can determine for the coming year.

REPORT OF THE HISTORICAL COMMITTEE.

A. W. PEART AND W. T. MACOUN.

The year 1917 was an unfavorable one for the fruit grower. There was a great deal of rain from the middle of May to the end of July, especially during the latter month. This was followed by a long drought which was not broken until the middle of September. These conditions were against the grower.

Although there was abundance of blossom on the large tree fruits it failed to set, with the result that the apple crop was the lightest in perhaps twenty-five years. The quality, too, was very poor, owing largely to the prevalence of injurious insects. A great deal of the spraying done was not effective on account of the frequent rains.

No doubt a contributory cause to the sterility of the fruit blossoms was to be found in the peculiar character of the previous year, which, through excessive rains at one season and scorching droughts at the next, made a stubborn soil condition, which prevented the proper growth and maturity of the buds.

Pears suffered alike with apples, and all the other tree fruits to a greater or less extent.

Small fruits were a fair crop. As a consequence of the fruit shortage prices ruled high.

The past three years have been very trying to the fruit grower. His crops have been poor, he has had to labor under unfavorable weather and soil conditions, and has suffered from a lack of competent help on his farm.

Farm labor has been absorbed, partly by the war and partly by the non-farming interests. Urban industries go into the labor market and offer a high scale of wages. A farmer cannot compete with them and have any profit left. The result is that our farms are under-manned, and our fruit plantations and orchards measurably neglected. This applies especially to the fruits and vineyards. On a small fruit plantation a grower can readily curtail his operations, reduce his acreage of fruit, sow more grain, or seed down his fields, and thus lessen the work.

The two last wet years have led to a considerable increase in tile drainage of orchards. Ditching machines, with coal oil as fuel, have been used in some districts. These tractors when properly handled do marvellous work, ranking with the self-binder in ability and efficiency. They are caterpillar tractors and dig out their forty or fifty rods a day, at any depth from two to six feet, leaving a good bottom for laying tile with a uniform fall. Speaking of tractors, it is interesting to note that the Government has obtained 1,000 Ford tractors to be sold to farmers at cost price for ploughing.

This committee always welcomes any historical information bearing on the origin or growth of any branch of the fruit industry.

Mr. William Armstrong, of Niagara-on-the-Lake, has recently furnished us with some information regarding the peach industry, which goes to show that it is well over a century old. In his possession is a diary—loaned to me for a few days—made by the late James Durham, Esq., of the Niagara River Road, near Queenston. Under date of March 29th, 1850, he records that on that day he is planting peach trees, to renew an old peach orchard planted by his father. On March 7th is recorded that his father, whose name was also James Durham, had met with an accident in his old cider mill, fifteen years before and was killed.

This would make the death of James Durham, Sr., on March 7th, 1835. He was born in 1769, of United Empire Loyalist stock, and once told his neighbor, Thomas Vrooman, that he had planted the first peach orchard of any extent in Niagara Township, about the year 1814. The orchard had around 500 trees.

For the last four years at each successive meeting of our Association we have hoped to be able to chronicle the fact of the end of the war and the restoration of peace. This world war of three and one-half years, with the millions of casualties and lost billions of treasure is searching, searching out the spirit of manhood of nations and individuals.

Many outstanding events have taken place in 1917—the collapse of Russia as an entente military factor, and her social and political disintegration into the chaos and anarchy of the jungle; the entry of the United States last spring as our ally with her vast resources of men and money; the elimination of the enemy in East and West Africa; the capture of Jerusalem and Baghdad by the British, where the crescent, after a reign of 600 years, gave way to the cross. These great national epics have been watched with the deepest interest by Canadians.

Our Canadian people have steadfastly set their faces to grapple with the situation to the utmost of their ability and resources, then, whatever may be the ultimate issue, we, as Canadians, and our descendants will always feel that we did what we could.

Many of our members have sons at the front, some killed, some wounded, and others again unscathed. All honor to our brave boys!

The final result seems to be slowly resolving itself into a question of foodstuffs.

Give the allies food, and with their superior numbers and resources time is on our side, and we should win. I am sure we will all make our greatest effort.

Those of us who carry on general farming especially, in addition to growing fruit, will try to produce more abundantly—each to the limit of his opportunities—such essential war foods as pork and wheat. Canada is doing well. We must carry on to a victorious conclusion.

MR. PEART: In addition to this report I have here the names of a number of young men who have been killed at the front. I have been talking the matter over with Prof. Macoun and the question was raised as to whether we should have these names published this year in view of the fact that there are a number of fruit growers scattered all over Ontario, and some of their sons have been killed, and it was a question of whether we should only put in the members of our Association or of all fruit growers in the Province.

DR. GRANT: I think it would be a good idea to commence now and have the Honor Roll published in connection with the proceedings of this convention. The material can be secured by circularizing the members, asking them to send in the names of those who have made the supreme sacrifice, and I think we should limit it to the members of the Association. I would have much pleasure in putting that as a motion.

MR. BUNTING: Dr. Grant favors an Honor Roll of the members' sons of this Association that have enlisted for overseas service. That being so, I have great pleasure in seconding his motion. It is also intimated that the Roll should be commenced at once, and that it should be divided into two sections, those who have given their services to the country voluntarily, and then a list of those who have made the supreme sacrifice.

MR. ARMSTRONG: In case there should be any daughters of fruit growers on the nursing staff, their names also should be mentioned.

THE CHAIRMAN: You have heard the motion that the Secretary proceed at once to ascertain the names of fruit growers or sons of fruit growers who have enlisted for overseas service, and also those who have made the supreme sacrifice, and the daughters of fruit growers who have joined the nursing staff, and that this list be prepared as fully as possible and be published along with the proceedings of this Annual Report. Carried.

MR. PEART: Mr. Macoun and I would like very much if every member of the Association would send us any historical notes bearing on any of the varieties of fruits, and more especially on the origin of any of the fruits—pears, plums, apples, and so on. We will welcome any material of that kind.

REPORT OF THE NEW FRUITS COMMITTEE.

W. T. MACOUN, DOMINION HORTICULTURIST, OTTAWA.

I hoped to have seen the members of this Committee before the report was called for, and there may possibly be in the audience Mr. Palmer, of Vineland, and Prof. Crow, of Guelph. We have not written the report yet, and we hope to get together and compare notes. With the three stations now, Guelph, Vineland and Ottawa, the Province is in a pretty good position to get all useful information with regard to new varieties that can be got. For instance, Ottawa is in the coldest district, Vineland is in the warmest, and Guelph comes between, so that by testing at these three stations we can have every possible information. We have two methods of getting information, first any person who has any fruit sends it to us for examination, and if it is worthy of testing, we ask for scions and propagate it and grow it. We have been established at Ottawa for some thirty years, and we have a very large collection of seedling fruits which have been sent in to us by different individuals. So far there have been very few of them that were any better than those already on the market.

During the past year there were practically no new seedlings sent in on merit, except one peach that Mr. Hodgetts sent to me that was grown in the vicinity of Toronto—a very promising peach.

APPLES.—Of the varieties of apples we have been testing at Ottawa, there are two or three that I would like to draw your attention to as seeming to be hardier than a good many others. For instance, we find the Stayman Winesap apple to be hardy, but we do not know whether this winter will clean it out or not. Except for the year 1917 it matured very well, but this last season was short for it. I consider it one of the most promising of winter apples that have been widely tested, and I think it is worth while for any grower to plant out a few trees to find out how it will do in his district.

Rome Beauty we have found also to be hardier than most of the sorts we have in Ottawa. They can be grown in places where some of the others will not grow.

Among some of the earlier apples, a variety which was rejected some years ago in the Province of New Brunswick called the Crimson Beauty colors before any other varieties in our orchard. The Crimson Beauty will color up and be in condition for sale before any other variety in the orchard, but that is about all there is in favor of it, because it is an apple of poor quality and is not a good shipper, but it would be a good apple for a person who has a regular market.

The Red June, an early apple, grown a great deal in Virginia and the mountains of the Eastern States, does well with us, and we would suggest that the fruit growers should try some of these trees.

In addition to these we have had hundreds of varieties that we have rejected, but I expect that ten years from now some of them will come to the front, and I will send out a few trees to anyone who would like to try them. If there is any man here who would like to try one tree of a half dozen varieties of our best sorts, and if he will give me the season he would like to get the trees, I will be pleased to send them to him.

I am perfectly confident that there are quite a large number of them that will take their place some day in the catalogues of the leading varieties, but I am not booming them just now.

We have had our best success from seedlings of the McIntosh and the Northern Spy. The McIntosh apple has given us seedlings that ripen in August with the

McIntosh flavor. We have McIntosh apples in August, September, October and November, and that gives us a very long season for that type of apple.

The Melba, an August apple, and the Joice, September, are the two most promising, and I feel they are the best we have for that season. In the Northern Spy we have apples that are ready for use in October with the Spy flavor and covering the season from October during the winter. A few years ago we had practically no winter apples at Ottawa, and we have now at least 100 varieties of apples that keep all winter through, so that if they are not of use to anyone else, they are of great value to our Experimental Farm where formerly we could not keep up the supply.

PEARS.—With regard to pears we have been doing a great deal in testing the pears, but practically all the good varieties of pears have failed. Among the Russians there have been three—Kurshaya, Bessimianka and Sugar Pear—which have stayed there for a good many years and have passed through the winter successfully. Mr. Logsdail, my assistant, has crossed these varieties with pears like the Clapp and Bartlett, and we have a large number of young trees coming on, which we hope will be blight resistant.

PLUMS.—Among plums we have not found any promising new varieties except the Mount Royal, which originated on the Island of Montreal, and it gives us a crop that we did not usually get before its introduction.

Japanese plums are not of value. There are two hybrids between the Japanese and the American, one called the Orinato and one called the Emerald, that we find distinctly better than anything else we have on the farm, and I would like to see our nurserymen get hold of some of these.

Among the strictly American plums there are several that we found very good—Brackett, Admiral Schley, Surprise, Bixby and Cheney. Our nurserymen do not seem to get these new varieties, and I think it would pay them to do so. We believe that the men who are growing American plums in the colder parts of Canada are making far more money out of their plums than any of the men who grow European plums. They come in earlier when the people are eager for plums, and they sell for twice what you can get for the European plums.

CHERRIES.—We have not found any new cherries that are suitable for our district except the Fuchi Cherry which is called the downy leaf cherry, from Northern Japan, and we have found it very hardy.

GRAPES.—We have tested a very large collection of grapes during the last thirty years to get varieties most suitable for our part of the country. There is one that was called the Rogers 24 that we got some twenty-five or thirty years ago, but it is not the Rogers 24, and seems to answer to the name of "Mary," and is very much like the Lindley, but it bunches much better than the Lindley, and is better in quality. I would be very glad to send cuts of these to any fruit grower.

We have now quite a large collection of European grapes, and they have done fairly well. A great many years ago European grapes were tried, but for some reason they proved a failure. This last season was very cool and late, and there was one variety called the Pearl Csaba which ripened three weeks before any other variety in our vineyard. It ripened the 4th of September, and we did not have any other grapes ripen until October. I do not say that would prove to be a commercial variety, but even in places where grapes are difficult to grow, some of these European varieties should be tried.

BLACK CURRANTS.—We have been introducing for a good many years a number of black currants that the late Dr. Saunders originated, and we have found in

our own tests that some of these are better than any other sorts. I might mention four of them: Saunders, Climax, Kerry, Magnus.

RED CURRANTS.—Among red currants, Perfection seems to be one of the most promising and best sorts, and I dare say most of the fruit growers are now growing that variety. It is certainly a very good currant.

STRAWBERRIES.—Among strawberries, we have not found any of the newer introduction that are equal to some of the old standbys. We have a few of our own seedlings, two of which were very promising—the Portia and the Valema. Apart from that there are no new varieties of strawberries which I would care to recommend.

THE CAR SITUATION.

G. E. McINTOSH, IN CHARGE OF TRANSPORTATION WORK, FRUIT DIVISION,
OTTAWA.

If I had been asked to select the most uninteresting, and possibly the most discouraging, subject upon which to speak to an audience of fruit growers, next to that of poor crops, I believe it would be "The Car Situation," because there is so little prospect for improved conditions, especially in so far as suitable cars for fruit transportation is concerned. The past marketing season in the provinces which had an apple crop was a trying one for the shipper, and it is extremely difficult to even attempt to suggest methods that would better conditions relative to the car situation in Canada, when we have prospective increased tonnage and little or no prospects of increased railway equipment. You will therefore realize how much more difficult it is to attempt to make even the subject of transportation interesting to the fruit grower, who, as owner of a producing orchard, is practically a forced producer of an extremely perishable product at a time when almost every wheel in the marketing machinery is disabled.

The magnitude of the railroad interests of Canada may best be shown, perhaps, by a statement respecting their mileage. Official statistics up to June 30, 1916, give an operating mileage of 37,434, an increase of 1,851 miles during the year ending that date, and nearly doubling their mileage in ten years. The situation may be further illustrated by reference to the relation of mileage to population. Europe has approximately 2,250 inhabitants to every mile of road; the United States has 395 inhabitants to every mile of railway, while in Canada we have 213 inhabitants to every mile. This indicates that proportionately to population Canada is even better equipped in railway mileage than our neighbors to the south, who are over five times better equipped than the European countries. Canada's railways date back to 1835. For the next eleven years there were but sixteen miles of railway. This increased to 2,695 miles in twenty-five years, but the largest growth has been since 1884. The year ending June 30, 1915, shows an increase of 4,783 miles, the largest yearly increase in the history of Canadian railways.

I present these figures and draw comparisons simply to place before you in a concise manner, the fact that in any failure on the part of the carriers to give the public reasonable and just service, such deficiency cannot be attributed to lack of track accommodation. It has cost Canadians something to have such railway accommodation, approximately \$125 for every man, woman and child; the land

alone granted to them exceeds the total acreage sown to field crops by 18,336,660 acres, or over two acres per capita.

Coming back to the car situation, and applying it to the marketing of fruit and vegetables, it is interesting to note that the total refrigerator car possessions for all railways operating in Canada are 4,740. To this, however, should probably be added 475 potato cars, fitted out by the C. P. R. and C. G. R., and we have 5,215 cars suitable, but not always available, for the transportation of fruit and vegetables, except for that portion which moves by express and before refrigerator protection is needed.

There are approximately 201,614 cars of all kinds in the freight service of Canadian railways, and over 100,000,000 tons of freight was handled during the last railway year, but this does not nearly represent the total amount of freight tendered. It is a fact that if every suitable car was pressed into service to-day, the railways could not move the pulpwood alone that is awaiting shipment, and some of which has been piled for three years. There are 21,000 cars belonging to Canadian railways now in the service of American railroads, while only 8,000 foreign cars are on Canadian tracks. The C. P. R. has at the present time over 300 potato cars in the New England States which they cannot get back, yet there is danger of many carloads of potatoes remaining unmarketed in the Maritime Provinces, while the turnip crop of probably 300 carloads at points on the Canadian Government Railway, for which there is a demand in Boston, is practically tied up and turnips spoiling.

It is estimated that the distribution of the 1916 Canadian apple crop alone added \$1,313,187 to the freight receipts of the railways. If this is correct, and the 5,215 suitable cars were used entirely for such traffic, each car would have an earning capacity of \$251. I do not say such was possible, but the point I wish to make clear is that there was apparently that much business offered to the railways, and if the number of suitable cars in their possession did not handle the traffic, then they were not fulfilling the terms of the Railway Act, under which they are supposed to supply the shipper with safe and secure cars to transport freight delivered by him to them.

The successful transportation of fruit is a complex problem even under normal conditions, but there is no disputing the fact that the railways have had extraordinary conditions to meet in keeping up a supply of equipment during the war period, and particularly the past year. I am convinced after my experience of the past few months in our endeavor to market with a reasonable degree of safety the apple crop of Nova Scotia, and the surplus potato crops of Prince Edward Island and New Brunswick, that everything possible was done by the different railways through united co-operation to move with a preference such commodities even to the extent of an exchange of equipment. Every railway concerned in the traffic referred to, seemed to accept their part as a national duty and endeavored to give special attention where the demand warranted, but I take this opportunity of specially mentioning the Canadian Pacific Railway, because I venture to say that only through traffic arrangements made with officials of that company whereby from time to time they released their own cars to competitive companies, was it possible to market the Nova Scotia apple crop, and I might go further and say that unitedly the Canadian Government Railway and Canadian Pacific Railway were largely responsible for preventing a very serious situation in certain Ontario and Quebec centres within the past few weeks in respect to the supply of certain food commodities.

True, regulations were made effective by certain carrying companies, particularly in Western Canada, that were not in the interests of greater production of foodstuffs, and certainly unsatisfactory to shippers of perishable commodities, as under these regulations delay, congestion and financial loss were experienced. However, on the whole, the service for the fall and winter movement has been better than was expected in the early part of the season.

The Nova Scotia apple crop the past season, as you know, was additional rail traffic, made necessary because of the British embargo, and fortunately for the growers of that province, Ontario was not a competitor, because of a light crop. This being the case, efforts could be, and were, centred on supplying Nova Scotia and British Columbia car requirements. Another year the situation may be different, but the railways will be better prepared. Last season there was an uncertainty about the permanency of the embargo, and everything was confusing. It is now pretty generally acknowledged that the British embargo will remain for the duration of the war, and consequently traffic arrangements will be made to meet the condition. It is one of the many ever-changing conditions in the present every day life, which compels the organization of a system of transportation to meet emergencies, and while perishable shipments will no doubt in the future, as during the past year, have first place in so far as freight movement is concerned, it is going to require the united co-operation of railway officials, Board of Railway Commissioners, Canadian Railway War Service Commission and Food Controller, to enable the movement of such products from one producing centre to the consuming markets of another part of the country, if it so happens that the fruit producing provinces each have a fair crop.

Nearly 2,000 carloads of Nova Scotia apples, exclusive of shipments to local points, have been moved. Of this number approximately 800 carloads came to Ontario and were distributed in seventy-one different centres; 450 carloads were marketed in Quebec, and 350 carloads reached the markets west of the Great Lakes, the balance being distributed in other Canadian and United States markets. There is estimated to be 100,000 barrels yet to be moved from the province which have been held over by the owners. The shippers of Nova Scotia responded to an appeal from the Fruit Branch to conserve cars by loading as heavily as sale contracts would permit, the result being that on the movement of the 2,000 cars no less than 470 cars were released or put into service. A few shipments were below 30,000 pounds, but the average greatly exceeded this. One car went forward by mistake with 50 barrels, while the largest contained 338 barrels, or 49,650 pounds. I bring this to your attention as an early advice for next season, and would accompany it with the suggestion that apple sales have no carload minimum regulation. This method of saving cars is most effective, as demonstrated by the action of the Nova Scotia shippers. In this connection might also be mentioned the fact that we found the car shortage the past few months was largely attributable to consignees holding cars on track under load for various reasons, not so much by the large dealers as by the smaller ones, who appeared to be using the cars for warehouse purposes. Such practice, under present conditions, is little short of a crime. The seriousness of the situation was laid before the Food Controller, resulting in the matter being dealt with by an Order-in-Council, making the following regulations regarding freight cars containing food or food products: —

(a) It shall not be allowed to remain under load at destination longer than four days after notice of arrival has been given by the railway company to the consignee.

(b) If held for a longer period than four days the railway company must notify the Food Controller.

(c) If held for furtherance order and such is not given by consignee within one day of the time of arrival, the Food Controller must be notified.

(d) After two days notice by registered mail, if the car is not unloaded or furtherance order given by the consignee, the contents will be seized by the Food Controller and sold, and after paying all charges, the balance, if any, will be paid to the consignee.

(e) The Food Controller may forbid any railway company from accepting any food or food products for transportation from any shipper whose goods have been seized.

(f) Any person guilty of an offence under this order will be liable to a fine not exceeding \$500, or to imprisonment for a term not exceeding six months, or to both fine and imprisonment.

Under this Order-in-Council, if properly enforced, I believe the shippers will have an improved service, but there are greater leaks in car wastage than in the actual loading or unloading, and the fault is upon the railways. President Willard of the Baltimore & Ohio Railway Co., says: "Freight cars in this country are upon the average under the control of the shippers 37 per cent. of the time—37 per cent. the shipper has the car, 6 per cent. of that 37 being Sundays and holidays. That leaves 63 per cent. of the time of the car in the control of the railroad. Only 11 per cent. of the total time of the car is it actually being moved. The other 52 per cent. of the time it is standing still in terminals, waiting to be repaired, being moved from the yard where the train left it to the warehouse, and things of this kind. Only 11 per cent. of the time is the car actually in motion; only 37 per cent. of the time is it under the control of the shipper, and figures show the Baltimore & Ohio is slightly better than other roads."

Cut in two the 52 per cent. of the time freight cars are not in use on the Baltimore & Ohio, and it would in effect add 22,000 cars to that railroad's equipment. An investigation along this line in Canada is probably necessary to locate the real reason of present transportation conditions. There are many who believe it is not so much a shortage of cars as it is a shortage of locomotives, to make possible a proper distribution. Probably the best equipped railroad in Canada to-day for motive power, considering its mileage, is the Canadian Government Railway, and that road has turned over some thirty locomotives to other roads within the past few months to facilitate the movement of perishable foodstuffs, munitions and other commodities.

The regulations of the Food Controller in regard to the detention of cars is a most important piece of legislation and far reaching in its effect, but I believe he could go further and give some protection to the producer and shipper of fruits and vegetables by making it compulsory for the consignee to accept shipments of perishable foods ordered by them when arriving in good condition. The practice of holding up carload shipments at destination on the least possible chance of complaint against the shipment, and then endeavor to compel the consignor to reduce the sale price, probably all because of a falling market, is not a fair business method, and is not permitted under the food control act of the United States.

Ontario apples will have to compete with Nova Scotia apples in the different markets next season. It is quite evident the marketing channels will be the same as in the past season; therefore shippers of perishable foodstuffs will be most interested in any legislation or order by the Food Controller that will make marketing

reasonably safe, and get the greatest possible service out of all available railway equipment. In Western Canada, Ontario has a freight rate advantage over Nova Scotia of at least 38 cents per barrel; from 8 cents to 15 cents per 100 pounds in Montreal and Ottawa, and proportionate rates covering the territory lying west of these points. Thus the only territory in which Nova Scotia has a freight advantage over Ontario is points in Quebec east of Montreal; the Maritime markets, Newfoundland, and possibly a few border markets of the United States. Nevertheless, if the British embargo remains, and I believe it will, I venture to say Nova Scotia apples will be a strong factor the coming season in many Ontario markets, and possibly even west of the lakes.

It was my privilege, along with the President of your Association, to oppose, before the Board of Railway Commissioners, the application of the railways for an increase of 15 per cent. in freight rates, because it was evident that those connected with the fruit industry were not realizing prices that would warrant an increase, because it was a horizontal increase, and because all railroads did not appear to require it. One railway in 1916 made a profit of $22\frac{1}{4}$ per cent. on the capital actually invested in operation. All railroads did not do so well, but is that any reason why \$40,000,000 a year should be levied on users of railroads at a time when one of the chief bodies of users, namely the farmers, the fruit and vegetable growers, are being urged to increase food production, and nearly one-half, or \$20,000,000, turned over to a railroad company not actually needing it?

Government action to meet conditions which have been hampering the efforts of the railways to provide an efficient service for the country will in all probability have to be taken in the near future. Probably the greatest thing that could happen for the shippers of Canada, particularly in view of the war-time conditions, is government operation of the railways. I do not even suggest that this step should be taken, but if the situation in Canada at the present time is such that it demands a transportation monopoly, then I do say that the only safe plan for such a monopoly is government control.

It is a fact that there is an apparent lack of adequate facilities offered by some of the railroads for handling the tremendous volume of business, and that the commerce of the country is moving under intermittent embargoes, but is it fair to say the carriers could have avoided the condition, and prevented the resulting losses to the whole country?

Prices for the necessities of life have increased, and partly because existing supplies cannot be brought to the consumer. Inadequate railway facilities may be said to have helped to prevent competition in the consuming markets, and because of this, unreasonable prices are being demanded for certain foodstuffs while there is a tremendous surplus awaiting to be marketed. This may all be true, and yet I believe the carriers are doing everything within their power to meet the situation.

Private vs. Public Ownership of railways is a big question, and as I have previously pointed out at meetings of this Association, there is a great deal to be said in favor of both, but Government operation is not necessarily Government ownership, and the present might be an opportune time to lay the foundation for a definite railway policy for Canada. The United States has recently taken over the control of its railways, and some of the immediate benefits to the shippers are as follows:—

- (1) Only companies that require financial assistance will be given such.
- (2) Equipment will be pooled and supplied where needed regardless of competitive conditions.

(3) Freight will be moved via the shortest route, regardless of giving the originating carrier the long haul.

(4) General advances in rates will not be made except by the Government itself, and concerning which the shippers, namely the citizens, the taxpayers, would be entitled to be heard. Any profits will go to the Government and not to the speculator.

(5) Since the Government will be interested in making a record for efficiency, rather than to hoard revenues, claims will undoubtedly be more quickly paid.

(6) The public interest would be first served, and a possibility of the country's expenses on transportation being greatly reduced.

(7) A great national necessity, combined with a sincere patriotic motive, must result in a great benefit to the masses.

It will suffice to say that, while the strains of the war have much to do with the present transportation conditions in Canada, the one outstanding fact is that our transportation system is at present lacking in the capacity to meet the demands of the shippers, and the resulting loss to the general public has been very large. It is also true that under normal conditions there are periods when a substantial part of the carriers' equipment is lying idle, and even now we must concede the fact that the carriers cannot prudently undertake to meet extreme and extraordinary demands.

The whole matter therefore boils down to this: We must keep our transportation facilities up to the measure of the country's growing business, and this we are told can only be done through increased freight and passenger rates, Government aid or Government control.

Before closing I might refer to some local matters. Early last season a suitable shelter was constructed at Burlington, and at the same time we had endeavored to have a shelter provided at Bronte and Oakville. The Board of Railway Commissioners ordered that Bronte should have a shelter, to be completed by the 8th of May next. If the crop conditions are such at other points on the line that they require protection, we will be glad to take the matter before the Board and also any other complaints that the growers may desire to make. Owing to the possible conditions that will exist next fall, I would like to ask the Ontario shippers to respond promptly to any request that may be sent out from the Fruit Division for statistics relative to their crop movement, so that we will be able to supply the railways at an early date an approximate estimate of the movement from certain districts, and in that way, through the National Car Service Board, we will be able to make better distribution of cars. I can assure you that the railways are united in their efforts to give the preference to fruits and to vegetables.

Next season we may experience considerable trouble in getting cars, but fruit and vegetables will have first consideration in the supply of equipment.

I would also like to suggest that shipments be made as early in the season as possible. There is a very limited number of refrigerator cars and all fruit that can be moved in box cars should be moved in that way.

There is a matter coming up at the present time as to supplying stoves in lined box cars. The question is as to whether the shipper should supply the stove or the railway company should supply it, and I would like to have the opinion of some of the shippers on that point.

MR. JOHNSTON, Forest: If the owner has to supply the heater for the cars it would be very difficult to get them back.

MR. MCINTOSH: I would like to express my appreciation of the kindnesses I

have received at the hands of the officers of the Fruit Growers' Association, and I would like to take this opportunity of assuring you that the transportation work that has been incorporated into the Fruit Branch under Mr. Johnston will receive my personal attention, and Mr. Johnston intimates that it will receive all the attention that it requires, even to the extent of having more assistance. I mention this fact to show you that Mr. Johnston is sincere in trying to give each province the best possible assistance in the matter of transportation.

A MEMBER: Can you help individual members to secure payment for losses on packages? I have been trying to secure payment for losses made last August, and it may be necessary to go to the courts to get it. I think the Association should take a matter of that kind up.

MR. MCINTOSH: We have tried for a number of years to have the jurisdiction of the Railway Board extended so that they can adjudicate on claims that stand over sixty days. The Railway Board claim they have no jurisdiction, and I do not think they are very anxious for jurisdiction.

THE CHAIRMAN: We often require to put on extra help unloading cars, and then after they are unloaded they stand four or five days before they are moved by the railway company. I think something should be done to make the railway companies get more locomotive power. If the cars were moved promptly there would be more cars available. Last year the railway companies insisted that we should ship our stuff at our own risk, but I do not think this will hold water if it was taken before the courts, but still if they get a bill of lading marked in that way it gives them a long chance to bluff the shipper off.

MR. ONSLOW: Can Mr. McIntosh help us in any way to get the use of empty coal cars for bringing out manure? Every day we see empty coal cars going from Toronto, and I should think it would be possible to use these cars for bringing out manure.

Several members stated that they had ordered cars for manure but could get very few of them and some could get none.

MR. MCINTOSH: The C.P.R. have equipped 355 cars for carrying fruit and vegetables by putting lining in them, and it is possible that you will have to use some of these cars for the apple movement this fall. It is a matter to come before the Railway Commission as to whether the shippers should supply the stoves or not.

ECONOMICAL SPRAYS AND SPRAYING FOR 1918.

PROF. L. CAESAR, PROVINCIAL ENTOMOLOGIST, O.A.C., GUELPH.

In discussing this subject we shall consider first the question of insecticides and fungicides.

INSECTICIDES.

Paris Green has not been used to any appreciable extent for orchard spraying for a number of years, so we may pass it over with the remark that this year, from the latest quotations received, this poison likely will cost somewhere between 60c. and 70c. a pound.

Arsenate of Lead will be sold both in the paste and the powder form. One form seems to be practically as good as the other, except that the powder form is easier to ship, unaffected by evaporation or frost, and a little easier to mix before

using. The powder form is practically twice as strong as the paste, and, therefore, costs about twice as much, but only half as much per barrel is required. It is believed that there will be a sufficient supply of arsenate of lead available. The price is likely to be for 100-lb. drum about 20c. to 25c. per pound for the paste form, and 40c. to 48c. per pound for the powder. This is much dearer than last year.

Arsenate of Lime, also called *arsenate of calcium* or *calcium arsenate*, and in the case of the Canada Paint Co.'s product—*kalcikill*—is another arsenical that is on the market this year in fairly large quantities. It is sold both in the paste and the powder form, though mostly in the powder. The powder is approximately twice as strong as the paste. Both are white substances very similar in appearance to arsenate of lead. As a rule they contain about one-fifth more arsenic, and, therefore, may be used in about one-fifth less quantity than arsenate of lead. They are also considerably cheaper. As said above, arsenate of lead this year will cost from about 20c. to 25c. per pound for the paste and 40c. to 48c. for the powder; arsenate of lime will cost from 15c. to 18c. per pound for paste and from 30c. to 35c. for the powder. Roughly speaking, therefore, arsenate of lime costs only about two-thirds as much as arsenate of lead, therefore, if safe, would be a boon to fruit growers.

HOW FAR IS IT WISE TO SUBSTITUTE ARSENATE OF LIME FOR ARSENATE OF LEAD?

In the *Canadian Horticulturist* of January last, Mr. G. E. Sanders, of Nova Scotia, speaks very strongly in favor of arsenate of lime as a substitute for arsenate of lead. After discussing the comparative merits of the two substances, he says: "It becomes plain that there is only one poison to recommend with lime-sulphur, and that is arsenate of lime, from one-half to three-quarters of a pound of the powdered material to forty gallons of solution." This is a very strong recommendation, in my opinion too strong for Ontario conditions, though it may apply all right to Nova Scotia. I am, of course, speaking only of Ontario. Every entomologist would gladly welcome a new and cheaper poison if he were sure that it was safe and effective, but he would be acting unwisely in encouraging fruit growers to adopt new insecticides before he was certain that they were safe and effective. Two years' test in one state or province is not, in my opinion, sufficient to determine this definitely. It is necessary, also, to get the benefit of the experience of others from other parts of the continent where climatic conditions may be different, because a mistake in this matter means too much loss to the fruit growers.

As for arsenate of lime, we know that it is cheaper than arsenate of lead, that it gives apparently as good control of biting insects and that it is more convenient to use with lime-sulphur, because arsenate of lead, when added to lime-sulphur, causes a black precipitate, while arsenate of lime does not cause any precipitate. We know also that it is safe with Bordeaux on practically any plant except peaches, but so also is arsenate of lead, a substance that many people, including myself, once thought safe with lime-sulphur until further experience showed that under some circumstances it would burn severely. Arsenate of lime, however, used with water alone, will burn very severely; arsenate of lead will not. I have ruined almost every leaf on a pear tree with a single application of arsenate of lime. Whether it is safe in Ontario with lime-sulphur or as safe as arsenate of lead is, in my opinion, still undecided. This week I received a letter from Dr. Quaintance, of the Bureau of Entomology, Washington, D.C., in which he expressed the opinion, based on several years' experiments, that it is practically safe on apple and pear trees, but that it is not safe on plum, cherry or peach because of injury to foliage.

Prof. Parrott, of Geneva, said he had tested it and felt so uncertain about its safety that he was going to advise the fruit growers of New York to continue the use of arsenate of lead for the present at least. Prof. Brock, of Illinois, has tested both the home-made and commercial makes on apples in 1916 and 1917 and he says: "Our two seasons' results would not warrant any satisfactory recommendation as to its use." Mr. Kydd, at Whitby, and I at Grimsby, tested it last year with lime-sulphur in comparison with arsenate of lead and lime-sulphur (Mr. Kydd used it only half strength), and in both places it caused more injury than the arsenate of lead. On the other hand Mr. Harris, of Ingersoll, had practically no burning, and in Nova Scotia where large quantities were used there was very little injury; Mr. Sanders says less injury than from arsenate of lead.

Taking all these things into account, and remembering that Dr. Quaintance, though favoring its use on apples and pears, expressly warns against using it on plums, cherries and peaches, it seems to me difficult to form any other opinion than that arsenate of lead is still for fruit trees in general the safer spray, and that it is the part of wisdom, until the matter is settled definitely, not to adopt it wholesale as a substitute for arsenate of lead. By the way most of the injury from arsenate of lime does not, in my experience, become noticeable for more than a week after spraying and, therefore, the fact that the foliage is healthy a couple of days after spraying is no proof it will remain so. I also consider yellowing of leaves just as much a case of injury as the burning of small or large areas in the leaf.

Though I am still far from convinced that arsenate of lime with lime-sulphur is as safe as arsenate of lead with lime-sulphur, I consider that because of the large number of people in Nova Scotia and some other districts who have used it on apples without injury, we should be quite safe in compromising by using it instead of arsenate of lead on apples just before the blossoms burst, because foliage at this stage is not nearly so liable to spray injury as later. The best strength to use would appear to be three-quarters of a pound of the powder form or one and one-half pounds of the paste to forty gallons of dilute lime-sulphur. For all later sprays on apples and also for all sprays against biting insects on pears, plums and cherries I think we should still rely on arsenate of lead.

As for arsenate of lead itself I believe that on apples and pears we might lessen the amount for the Codling Moth spray this year, and instead of two pounds paste or one pound powder use one and one-half pounds paste or three-quarters pound powder to each forty gallons liquid; for I do not think the Codling Moth will be very abundant this summer in most orchards, especially orchards where the crop failed almost entirely last year. This change, therefore, and the use of arsenate of lime before the blossoms will lessen the cost of orchard arsenicals considerably.

On potatoes this year, as their foliage is hardy, I should use about one and one-half pounds arsenate of lime powder or three pounds paste, either to forty gallons of Bordeaux mixture or to forty gallons of water, the latter containing about six pounds of freshly slaked stone lime or eight pounds of hydrated lime. The lime is used solely to prevent burning.

FUNGICIDES.

Bluestone this year seems likely to cost about 14c. to 18c. a pound in fairly large quantities. I might mention here that there are a number of fruit growers who prefer Bordeaux mixture to lime-sulphur. There is no doubt that it adheres better to the leaves and fruit in wet weather and were it not for the fact that it is less convenient to use, costs more and russets the fruit badly some years, there

would be few good reasons for preferring lime-sulphur to it for any but the first spray. It is the Codling Moth spray, as many have known for years, that causes most of the russetting, and so it would be wiser to use lime-sulphur for it.

Lime-sulphur will likely be available in sufficient quantity this year but will, I think, cost at least \$1.00 a barrel more than last year.

Soluble-sulphur is also available and wherever there is difficulty in securing a sufficient supply of lime-sulphur, especially in San José Scale districts, could be substituted for the first spray, and if thoroughly applied will give good results. I do not recommend it for any later spraying and consider it unsafe to use with arsenate of lime or any other arsenical.

DUSTING.

It is with a good deal of diffidence that I discuss dusting. There is no doubt at all that this is a wonderfully rapid and easy way of treating an orchard for insects and diseases. It is on very large trees about seven times more rapid than spraying even with a power outfit. On smaller trees the difference of time is not so great. In my own experiments the cost of the two methods has been on large trees about equal, but most people will find dusting more costly, that is when taking into consideration the materials, time, and labor. If other work, as will be the case this year, is very pressing the value of the time gained may more than compensate for any extra cost.

If I were to judge from my own experiments of the last two years I should speak very highly of dusting, because it has given me excellent results, just as good on the whole as the liquid lime-sulphur and arsenate of lead. From Nova Scotia, New York and Michigan I have also received word of some men having this year very good results; on the other hand there are many reports of failure. It seems to be the general opinion, and it is also my own opinion, that under conditions very favorable for scab development dust is inferior to the liquid. I believe this is chiefly because it washes off much more easily as a rule. I think, however, that in an ordinary year, in a well-pruned orchard not kept dark and also damp by dense windbreaks, the dust will prove satisfactory if well applied.

My experience would lead me to favor doing the dusting from at least three sides, and if possible from four. One of these sides should be done with the wind. A strong wind is not, however, very desirable as a rule for dusting. A good deal of practice and study is necessary to dust thoroughly and rapidly. It is also of very great importance to apply the dust at the right time: the spray calendar should be consulted for this. If the foliage is moist the dust adheres better, but we often cannot wait for this condition.

Whether any dust can be relied upon to control San José and Oyster-Shell Scale I am not prepared to say. I thoroughly controlled San José Scale myself last year on forty-eight large apple trees with soluble-sulphur and talc dust, but was fortunate in having the trees just moist enough to dissolve the dust immediately and yet not wet enough to cause it to run off.

Where San José Scale does not occur and Oyster-Shell is not abundant, I should recommend that the first dusting of apples should be when the leaves are about the size of a ten cent piece. No poison need be used in this application. Any extra application besides the regular ones just before and just after bloom may be given without poison to save expense. I should prefer this year to buy nearly half the dust without poison. This will reduce the price more than 50 per cent.

OMISSION OF SOME OF THE REGULAR APPLICATIONS OF SPRAY MIXTURE.

Where fruit growing is a man's business I should advise that all of the regular standard applications as stated in the spray calendar be given, in fact I think no good fruit grower should try to do with fewer than these standard sprays mentioned there; but when grain and stock raising are combined with fruit growing and all cannot be properly attended to it is clearly, because of the war, one's duty to give the grain and stock the preference. In such cases power outfits and the spray gun or a duster might be purchased to overcome the difficulty, otherwise it would be necessary for such persons either to omit spraying altogether for this year or else to give only one or two applications. In any district, except where San José Scale exists, *the most important spray is the one just after the blossoms fall*. Some years this one alone will give fruit almost free from scab and worms. *The next most important is the spray just before bloom*. These two sprays will most years, but not every year, give almost perfectly clean fruit. The spray before or as the buds are bursting is of course all important for San José Scale and for Oyster-Shell Scale, and, also, some years for Apple Scab.

With these facts in view every person can judge for himself which sprays it will pay him best to omit on his orchard.

USING A WEAKER MIXTURE OF LIME-SULPHUR FOR THE FIRST SPRAY.

Most Ontario apple orchards are free from San José Scale and nearly free from Oyster-Shell Scale; hence in such orchards I see no good reason why the first application of lime-sulphur should not be greatly weakened and the dilution be made about one gallon to fifteen gallons or even twenty gallons of water instead of one gallon to seven. This would mean a saving of over forty cents a barrel on the diluted mixture. I should also advise that this application be given just after the buds have burst instead of before they burst, as this will be a more effective time in preventing early infection from apple scab.

Q.—Is arsenate of lead any good after it is frozen?

A.—I would never throw away arsenate of lead because it was frozen. It becomes a little coarser in its texture and it will not spread so nicely all over the leaf, but otherwise the poison is there just the same as before it was frozen.

Q.—Is arsenate of lead all right with the Bordeaux mixture?

A.—Yes. I should say you could go right ahead and use it on potatoes. If you will add about six pounds of freshly slaked stone lime or seven or eight pounds of hydrated lime, you would make a saving over Paris green, because it will be dear this year.

Q.—What about side worm this past year?

A.—The natural instinct is to go to the apple. Therefore, if there were only five apples last year to twenty the year before, and if there were twenty moths in the spring to go to the five apples where the previous year they came to twenty apples, that is the reason there were so many of them in the apples. The small number of apples drew the moths, and the apples were attacked four or five times as severely as they would have been in ordinary seasons.

The codling moth came out very late last year and we had hardly any second brood. The little fine hairs that are on the apples in the early stage had got off by the time the codling moth came out.

DR. GRANT: There is a powdered form of lime-sulphur on the market?

A.—Yes, but it has not as yet made any headway, and I do not know much about it.

MR. KYDD: What pressure is necessary for the operation of that spray gun?

A.—About 200 pounds pressure.

THE CHAIRMAN: One hundred and seventy-five pounds pressure is sufficient.

PROF. CAESAR: The cost of this gun is rather high. It is about \$20.

MR. KYDD: Is it necessary to spray the under side of the leaf as well as the upper side?

PROF. CAESAR: Mr. Saunders says that if you spray the under side you destroy the foliage, and a number of you would have lost your trees long ago if that was correct.

DR. GRANT: Is there a little more danger of burning?

A.—Yes, with the high pressure there is a little more danger of burning.

Q.—Would the ordinary hired man move fast enough to operate that gun?

A.—The man has a chance of taking a stand as he comes up to the tree, and all he has got to do is to move slowly, but the thing is, will he be thorough enough? The whole matter comes down to a question of thoroughness.

Q.—How about getting into the blossoms that are pointing upwards?

A.—It will control the blossoms very well. If you have a tree wider than this room and you try to spray it from one side without much wind, it is hard to reach right through with the ordinary nozzle, but if you have one of these guns you can stand out from the tree and put the spray right through it.

Q.—Would not there be considerable waste?

A.—I have only used it on thirty trees, but I am told that there is no waste.

THE CHAIRMAN: I was at the Rochester Convention, and they use the gun over there much more than we do, and it was stated by the growers there that they use less material with the gun than by the old process.

Q.—Does not the sprayer need to be more accurate?

A.—The best way to find out how these things work is by trying them. If I had an orchard, unless it was an orchard especially favorable to scab, I would rely on the dusting, but I would not use it where there was San José Scale. I am not recommending it, and I am not hitting it. I cannot go any further than that. I know a number of men who are fairly good sprayers who are not getting results with dust, but I know that I have gotten splendid results with dust. I do not know whether the hired man is going to make the most of it or not.

Q.—Do you think the dust is quicker than the liquid if it is applied with the gun?

A.—Yes, I should say the liquid applied with the gun is only one-third as fast as dusting.

COMMITTEES.

The following committees were appointed:

RESOLUTIONS COMMITTEE: DR. A. J. GRANT, Thedford; W. H. BUNTING, St. Catharines; R. B. WHYTE, Ottawa, and ELMER LICK, Oshawa.

NOMINATING COMMITTEE: A. W. PEART, Burlington; A. ONSLOW, Niagara-on-the-Lake, THOS. ROWLEY, Leamington; T. CARPENTER, Winona.

THE WORK OF THE FRUIT AND VEGETABLE COMMITTEE OF THE FOOD CONTROLLER'S OFFICE.

D. JOHNSON, FRUIT COMMISSIONER, OTTAWA.

I appreciate the fact that the Food Controller's Office is not popular, and that this is not a popular subject to bring before the meeting, but I do not believe any office has been more abused and misrepresented than this very office. I believe they have honestly striven to carry out their duty and do their very best to help out in the conditions which exist.

When the Food Controller was appointed to office the public immediately expected that they would get cheap food, and when the prices did not go down they immediately began to misrepresent the Food Controller. The public failed to realize that there was a very great shortage of food. The food situation is so critical that it is impossible for the Food Controller to reduce prices to any very great extent. The food shortage is caused by the shortage of men to do the work on the farms. It could not be otherwise, when one realizes that 40,000,000 men who formerly were engaged in production have withdrawn themselves from production, as far as food is concerned, and have become heavy consumers and destroyers of food. It has been the history of war that famine follows in its footsteps. I do not wish to be sensational; but I must tell you that conditions are very serious.

The consuming public wanted the price of apples to be fixed at \$3 per barrel. They wanted the price of butter placed at 25c. per pound and eggs 25c. per dozen. If Mr. Hanna had fixed the price of food at such prices the people would have said that Canada had found a great man, and they would have had more money to spend in 15c. shows, and to go to the theatres, and to buy automobiles.

A very large percentage of the city people look upon the farmers as profiteers. When we try to explain to them that it costs more to produce these things than it did in years gone by they say: "It is all very well for you to talk in that way, you are in league with the interests, you are in with the producer and you don't care a rap about the consumer." I remember on one occasion a man came into the office and he said: "Is this the Food Controller's office?" I said: "Yes." "Well," he said, "it is a very queer office," and I said, "What is the trouble?" He replied, "Well, I had to pay 40c. for a dozen eggs just right below your office, and in years gone by I used to get eggs for 10c. per dozen, and it is not any greater effort for a hen to lay an egg than it was a few years ago." And he meant it. I tried to explain to him that it cost more to produce an egg now than it did some years ago, and he said I was in league with the interests.

It is the same with fruit, they want it for a small sum, they don't want to pay the cost of production. When I went to the office first I heard all about the fruit growers. The people kept telling us that they were nothing but profiteers. They told us that they used to grow berries at 5c. and 6c. and now they are asking 15c. and 18c. They assured us that all you had to do was to go out and pick the berries, and that you only paid the girls one and two cents a box for picking them. They said that if the Food Controller would put on restrictions he would force these people to reduce their prices. Mr. Hanna was altogether too wise to interfere with production in that way. He realized the fact that production must be kept up. He realized that it did not matter how much money the people had, if they could not buy food they could not live.

Shortly after Mr. Hanna was installed he went to Washington to meet Mr. Hoover, head of the United States Food Administration, and they together formu-

lated a policy, which was this: That they would start a campaign throughout the country for the conservation of food and also to ask the people to substitute vegetables in the place of wheat and beef and bacon. On his return to Ottawa he asked me to give some attention to fruit and vegetables. After discussing the situation thoroughly we decided to follow in the footsteps of the United States Department and to form a fruit and vegetable committee. We wanted on this committee not only men who understood fruit and vegetables, but also men who had business experience and who understood something about the marketing of fruit and vegetables.

After some consideration we asked Mr. Robert Robertson to represent British Columbia. He is a brother of Dr. Robertson who was formerly Commissioner of Agriculture for Canada. Some years ago Mr. Robertson was manager of the United Fruit Growers of British Columbia, and handled a great quantity of fruit. Of late years he has been an importer of fruit from the Orient. We did not think we could get any man who know the business better than he did. For the great prairie consuming market Mr. F. M. Black was asked to serve. He was president of the Calgary Board of Trade and treasurer of the Grain Growers, the largest co-operative concern in America. In former years he was connected with P. Burns & Co., having direct charge of their retail stores. He was asked to serve for the purpose of representing the consumers, and he did represent the consumers. He was very much concerned about the welfare of the consumers. For the Province of Ontario we asked our good friend Mr. Hastings to act, and he has proven to be a most able man and we value his services very highly. Professor Cummings was appointed for the Maritime Provinces. He is Deputy Minister of Agriculture for Nova Scotia, and head of the Agricultural College for that Province.

Knowing the value of transportation in connection with fruit and vegetables was important, we asked the Railway Commission to appoint one of their members to assist us and they appointed Mr. Spencer, Chief Operating Officer of the Railway Commission, and I want to say right here that Mr. Spencer has proven one of the most valuable members of our committee. He did not know much about fruit or vegetables, but he did know about transportation as perhaps no other man in Canada did. He has been able, in co-operation with Mr. McIntosh, to do a great deal of good. The troubles we have had to contend with in the matter of transportation have been very great. One of the most serious troubles this country has had to face this year has been transportation.

We were not able to get this committee together until about the 1st of September. By this time the fruit crop was pretty well all harvested. And all we could do then was to hear about the high prices that you had charged the people. The committee first of all gave their attention to the producers. We knew that the apple crop was almost a failure in Ontario and Quebec. We found by that time that British Columbia had sold her fruit, and Ontario had also sold a large proportion of the crop, and it was decided not to do anything to regulate the price of apples so far as the producer was concerned. It was felt by all that the producer should be encouraged to produce, and that it was more important that the production should be kept up than that a less price should be paid by the consumer.

One reason why we decided to take in the wholesale dealers was that we were told that they were profiteers. We went into the affairs of the wholesale fruit and vegetable dealers very carefully, examined their accounts and their method of doing business, and I only wish we were at liberty to give to the public the conditions that we found to exist, but it was a private inquiry and I am not at liberty to go into the details. I can only tell you that the wholesale fruit and vegetable dealers of this country instead of being profiteers are up against it, and are not taking any

unreasonable toll from the public. Possibly you will not believe that and you will think that some of these wholesale houses are making an enormous profit. But on investigation we found that their expenses had risen just in the same proportion as everybody else, and in addition we found, on careful inquiry, that it cost them about nine per cent. to do business, and the average gross profit to the dealers of Eastern Canada is about ten and one-half per cent., so that they are not making more than two and one-half per cent. profit on their turnover. When we consider the perishable nature of the product they handle, and the climatic conditions they are up against, frost and rain, and hot and cold weather, and when we consider how this profit may be turned into a loss, I think you will agree with me when I say that their profit is only moderate.

Mr. Hanna sent out a circular to the wholesale dealers saying that he expected their co-operation, and that he would not stand for big profits, and that if they would not co-operate he would establish his own distributing centres throughout the country. Our committee decided after this investigation that it was quite impossible for any Government to distribute fruit and vegetables more cheaply than it was being done by the wholesale dealers at the present time. There are a few places in which expenses should be kept down, such as the duplication of travellers and things of that kind. There are honest and dishonest dealers, but the majority of the dealers have not been taking an unreasonable toll during the past year. We decided, however, to put in a certain regulation so that these dealers could not unduly speculate on the fruit and vegetables. Every wholesale dealer must be a speculator to some extent, he must buy a supply to carry him over for a week or so. But he must not buy a large supply and keep it until the price is twice what he paid for it.

It was also decided that every wholesale house in the country should be registered, and placed under license and only reliable houses will receive a license. If they fail to carry out the regulations which the Food Controller passes from time to time these licenses will be taken from them.

A great deal of attention has been given to potatoes. They were of more importance than apples to the public. We put forth efforts to try and find out what quantity of potatoes were in the country, and we found that there was a very large crop of potatoes in Canada. There was a big surplus of about ten million bushels in the early fall. In the United States there was a surplus of about one hundred million bushels over the average production. It was expected that the price would look after itself. However, transportation difficulties were such that the United States people were not able to get their potatoes to the market. There are certain parts of the United States that have huge stores of potatoes that they are not able to move. The potato dealers cannot get cars to move the product. Parts of the New England States have not been able to get cars and they have come to Nova Scotia and purchased potatoes.

We have to-day in Prince Edward Island two million or more bushels of potatoes. Mr. Baxter, of our office, has been in Prince Edward for some time trying to work out a method of distribution for them. Their railway line is a poor affair, and for ten days and a week it has been snowed under. I look forward to the day when the transportation facilities of the Island will be good and that fertile spot will have a chance to dispose of its products. There is still a large surplus of potatoes in Canada and I am expecting to see a break on the market any day. If I had any potatoes I would sell them because I expect to see a serious break in the market.

I have been asked a number of times as to what I think of the prospect for

marketing fruit in 1918. I do not think it would be wise for me to say what will happen to the fruit crop of 1918. The general opinion is that we are going to have a huge crop of apples in Canada next year, I am not looking for a very large crop, and my reason is this: the farmers are not looking after their orchards as they formerly did. They are looking after their cows and the milk and the hogs and poultry and other things, and I think that is quite right. Under the present condition of the labor market they are not able to get the necessary help to look after everything, and they look on fruit as a sort of speculative crop. Last year we found that the orchards were everywhere neglected, and the farmers told us they had not time to attend to their orchards. I am sorry, I hope they will find time to attend to their orchards, because they must be attended to.

We should give every possible attention to the orchard; because if there is a big crop of fruit next year it will only be the good fruit that has been properly sprayed and looked after that will be in demand. To the commercial fruit grower, who is of necessity tied up in his orchard, I would say to him, "give it every attention." If I were talking to a mixed farmer, and knowing the conditions as they are to-day, knowing that there is an embargo against shipping apples to England, I would say to him: "Give the very best attention you can to your hogs and the dairy and the poultry, and if you have any time left over give that to the orchard. Perhaps that is not a wise thing for a fruit grower to say, nevertheless, that is the wise thing to do. We are under war conditions, and food is becoming essential. We are told that the world is very short of food. Only a short time ago France had only three days supply of food ahead. That is a very serious position. I realized what it meant the other day, when I found myself standing in line in Ottawa to get 200 pounds of coal from the Fuel Controller. That was bad enough, but what would we say if we had to stand in line to get a loaf of bread, and something to sustain our families for the next 24 hours. That is about the condition that exists to-day in Italy and France.

In conclusion, let me say a word or two about production. If you have any land available I would urge you to put it into crop and do something to produce food. You are sure of a good price. I know you are all patriotic, but I simply throw out this suggestion in the hope that you will do your best for the coming year. The Government are very anxious to have the people produce just as much as they possibly can during the coming year. We also want to urge you not to waste food. It has been said that there is a great deal of food wasted in the city, but now that the city people have to pay such a high price for everything they are more careful, and do not waste as much as formerly. Sufficient goes to waste on many farms to keep a house supplied with certain kinds of food. We have some startling evidence as to the amount that goes into the garbage can. It is something like \$75,000,000 worth each year. But the waste on the farm is far more than in the city.

I believe the Food Control is going to be one of the greatest elements in the marketing of the fruit crop of 1918. The policy of the Food Controller is to induce the people to eat more fruit and vegetables and to save other foods for export. He is introducing a campaign to that end. I believe by the time next year's crop comes on the market the people will feel it their duty and they will feel that they are almost traitors to their country if they do not substitute fruit and vegetables for other foods. There is no reason why we should not be able to dispose of a tremendous quantity of fruit this year. It was supposed

that it would be impossible to market the apple crop of Nova Scotia last year, but it has gone into the market at enormous prices, and because of that they have one hundred thousand barrels of apples down there. People will not buy apples at \$7 and \$8 per barrel. If they had been priced at \$4 they would have been all sold. Down on the street that I live on in Ottawa nobody has had apples this winter because they cannot afford to buy them at the price. There was imported into Canada nearly five hundred thousand barrels of apples this year. That was American fruit for which we paid the outside price. These apples were sold at \$3 and \$4 per box. If the prices had been moderate I believe the consumption of fruit would have been enormous. I am looking for a good market for fruit the coming season, and I trust that you will all do your best to produce more food during 1918 than you ever did before.

THE LICENSING OF THE FRUIT AND VEGETABLE TRADE.

J. R. HASTINGS, OF THE FOOD CONTROLLER'S OFFICE.

The subject which I have been asked to discuss with you to-day is one that at first glance does not appear to be quite at home on the programme of a fruit growers' meeting, but on a closer view we will find that certain phases of it have a very direct bearing on the fruit and vegetable industry, and the licensing system as applied to wholesale fruit and vegetable handlers is, therefore, a fit topic for this gathering. It is an entirely new subject, and has never been discussed at any previous fruit growers' convention in Canada. Reference to it has frequently appeared in the Press during the past few months, and some of the Press statements have caused no little confusion in the minds of dealers who may be included in the licensing system and have brought a good deal of unnecessary work to the Food Control office. I have a clipping here, taken from a prominent Western Ontario paper, which speaks of "Complete Revolution of Methods—Drastic Regulations Affecting Dealers in Food Products," etc.

This is news to the Food Control Department, and while certain regulations are already in operation and others under consideration, no revolution in methods or drastic regulations are in contemplation. If the dealers themselves have any drastic regulations in view, they have not been communicated to the Food Controller. The Licensing System is evolutionary—not revolutionary; constructive—not destructive.

The system as applied to handlers of food produces is, so far as Canada is concerned, purely a creature of war conditions and is still in the formative stage. In none of the countries by which it has recently been adopted has it attained that degree of order and efficiency which is its goal and which time and further effort will enable it to reach.

I will not attempt to tell you what has been done by way of licensing handlers of food products in other countries or to what extent it has aided the Food Administrators in dealing with food problems, but will spend the short time that has been allotted to me in giving you a hasty sketch of this phase of Food Control so far as it applies to our own country.

Canada had been nearly three years an active participant in the great conflict, and had been bearing a burden of tremendous proportions before the serious side of the food situation and the ultimate part it might play in the final result

was driven home to our Government with sufficient force to cause the creation of a Food Control Bureau, and not until June, 1917, was a Food Administrator appointed. Much has been accomplished. A world of valuable work has been done since the first dawn of Canadian Food Control. Many experiences, some serious, others ludicrous—a few annoying, have been met with since the moment Mr. Hanna, realizing the importance and difficulties surrounding the task to which he had set his hand, looked over his spectacles at the two men whose assistance he had first asked and said: "Well, boys, where do we begin?" Some day, I dare say, the history of our "food control" will be written, and if undertaken by a master hand, free to gather material from the almost innumerable volumes that will be necessary to contain the curious fragments—wise and otherwise—that will have drifted into the Food Control Department, a book of rare and surpassing interest should result.

The licensing system is only one of the factors affecting food control and by no means the most important. Increased production—food, more food, and still more food, is overwhelmingly the paramount consideration of the Food Controller, and will, I feel, become the watchword of every true Canadian as soon as the seriousness of the food situation so far as it concerns the Mother Country and her allies is understood and the grave responsibility that rests upon us to save them from possible starvation and disaster are fully realized. What I am now saying may be a trifle apart from my subject, but it is difficult to discuss the licensing system without, at the same time, considering this all important phase of the food question. And, moreover, I feel that no possible opportunity such as that presented to me now, should be lost to emphasize the tremendous individual responsibility resting upon us as food producers to do all that is humanly possible to not only produce but conserve food products.

In discussing the food question with Dr. Jas. W. Robertson in Ottawa a few days ago, I asked him if the situation is really quite as serious as some of the reports reaching us indicated. He replied: "Yes, more serious—it is alarming!" Dr. Robertson is, as many of you know, one of the outstanding men of the Dominion, and is one of the best authorities on the food question in Canada. A statement of that character coming from Dr. Robertson, with his well-known reputation for caution and accuracy, should be sufficient to remove from our minds any doubt that may exist as to the true aspect of the food situation.

Next in importance to food production is food conservation, and here is found a useful and most fertile field for the operation of the licensing system. As I have already stated, this branch of food control is still in the making, and some months of careful and patient work will be required to bring it into orderly and efficient operation. It is the opinion of the men best qualified to judge, that the system of licensing all handlers of food products has come to stay, that the old order of things has passed not to return again. The aim of the Food Control Department in dealing with the matter is to build up a structure that will, in these days of stress and strain, aid the Food Controller in the conservation of food products and ensure their distribution in the most efficient and economical manner possible and in the years to follow be a useful and ready medium for promoting and fostering more wholesome trade conditions.

During war times the licensing system will enable the Food Controller promptly to make effective any regulation he may deem advisable affecting prices and the handlers of food products, and it will be a powerful and ready weapon in dealing with any abuses that may be attempted by licensees. The day of the

so-called profiteer has passed, and it might surprise some of the men and women who have become obsessed with the idea that the average middleman is a sort of highway robber, to know just how little profiteering in foodstuffs has actually taken place in Canada since war was declared. Be that as it may, the day of the speculator in food is done, or shortly will be, and speculation as such will soon be a thing of the past. This statement need not and will not bring a tremor to the pulse of the fair dealing middleman, and I hope, since it may be taken as a fact, that it will offer a grain of comfort to the consumer. I am of the opinion that the most drastic regulation that dealers in food products will be confronted with will be based on something like the following:—

Licensees must bear in mind that excessive profits will not be permitted and the goal of the year's business must be a fair and reasonable profit above legitimate expenses. Whether or not the Food Controller will fix the maximum profit the fruit and vegetable dealer will be allowed to take, I cannot say, but I feel quite at liberty to make this statement, that if a maximum profit is named—and it is only reasonable to suppose that profits will be limited in some way—that any regulations which may be enacted affecting dealers' profits, will be found reasonable, fair alike to producer, dealer and consumer. With this simple regulation in force, the temptation of a licensee to load up with a view to obtaining speculative and excessive profits, will be removed. The rule, however, will not prevent a licensee from laying in at any time a sufficient supply of any food product that may be necessary to cover his normal requirements during the usual season of distribution, provided, of course, conditions do not make it necessary for the Food Controller to limit the quantity of any food product a licensee may be permitted to have on hand. Other regulations than those dealing with profits will doubtless from time to time be made with a view to eliminating whatever wasteful, unfair and uneconomic trading practices may exist—regulations of a constructive character having for their object the general good of the trade, and since the taking of excessive or undue profits will be eliminated, this will mean the cutting down of the difference between the price the producer will receive and the price the consumer will be required to pay, to the minimum.

Several branches of trade handling food products have already been put under license and it is the intention of the Food Control to pursue the work until all food handlers—retail as well as wholesale—have been included in the licensing system. It is no light task but if it succeeds in clearing up and rendering more economical and efficient the channels of food distribution, to the extent that its advocates confidently anticipate, the labour of organization will not have been in vain. There are many ways in which the Licensing Bureau of the Food Control Department, when fully organized and in smooth running operation, will be able to work in co-operation with licensees, to improve some of our present trade conditions, and the fact that dealers will be licensed and under the direct control and supervision of the Food Control Administration will enable them to organize in a way that heretofore would have been viewed with an eye of suspicion.

In the case of the wholesale fruit and vegetable handlers, a nominal license fee is required, and it is the purpose of the Food Controller in all cases, to exact only such fees as will add no appreciable tax on the licensees, and only sufficient in the aggregate to meet the cost of License Administration. Up to the present time, each branch of trade handling food products is being licensed separately, but it is likely that when a co-ordinated system, which is now being worked out,

is put in operation, a general license covering several lines of food commodities, will be issued and an adjustment of fees made.

I will now for a few moments refer to the Food Controller's Order of December 13th, 1917, under which the wholesale fruit and vegetable dealers were brought under the licensing system, and explain a few of the features in which we, as fruit growers, are interested. The wholesale fruit and vegetable men have been a difficult class to deal with in the matter of licensing, and in order to cover them and the various functions performed by the fruit handlers from the apple orchards of Nova Scotia, to the fruit growing sections of British Columbia, it seemed necessary to have two classes, one class having three divisions, and the other, six divisions.

Notwithstanding these numerous divisions, and the apparent conflict in a few class definitions, it has been rather surprising how readily the majority of the applicants for licenses have dropped into their proper divisions. On the other hand, there have been many and rather complex points to deal with, necessitating a very heavy correspondence, but it is felt that so far as it has gone, the licensing system has on the whole, worked out very satisfactorily and promises to bring gratifying results and attain the objects intended.

I may say that the licensing I have been dealing with should not be confused with the license or permit system under which export shipments of foodstuffs and certain other commodities are now made and as this may be considered as belonging to licensing I will refer to it for just a moment.

By an Order-in-Council dated November 17th, 1917, entitled War Measures—Prohibited Exports, a long list of items were included which shippers could not ship out of Canada without a permit from the Food Controller. The reasons for this Order are given in a letter sent to shippers from the Export Department of the Food Control Office, which reads in part as follows:—

The United States in order to exert their full force both in a military and commercial way so far as this war is concerned, put into force an export license system whereby every ton of foodstuffs leaving the United States could only do so on obtaining a license and then only to specified destination. It became necessary for Canada to follow suit in order to make the North American continent commercially watertight and give Canada a similar control of exports so that no goods of Canadian origin or of United States origin passing through Canada could leak out to the neutrals or allies without armies in the European fields. In other words it was the purpose of this measure to eliminate all possibility of certain commodities reaching Germany or her allies, and although over 4,000 permits have been issued, representing 4,000 separate export shipments, it is safe to say that none of these reached a destination not agreeable to the United States and Canadian authorities.

This address was followed by an interesting discussion regarding possible conditions should the war continue.

THE APPLE SITUATION FOR 1918.

J. G. ANDERSON, LUCKNOW.

Regarding the apple situation and the outlook for 1918, I look upon it as a most unfortunate circumstance that Ontario has had three poor crops in succession. Not only has the quantity been small, but to say the least, the quality has been

for the most part indifferent. This circumstance has given the western box apple a position in markets of the Prairie Provinces which they would not have had, and it will be exceedingly difficult for Ontario apples to regain the standing they formerly held in these markets.

Should Ontario, Nova Scotia and the western box districts all have a crop of apples the coming season and with the export embargo still on, the problem of finding a market for all of our Ontario crop would certainly be a very difficult one, and in that event prices would consequently be quite low.

At the present time the demand for any kind of apples is very limited in this market, and I notice that Toronto and Montreal are also very much lower in price than they were two months ago.

I think it was very unfortunate for the trade that the price of Nova Scotia barrelled stock was forced up to the high level it reached during October and November last. Had the price been kept within a reasonable limit, the crop would have gone into consumption. Instead of that I am informed there are large stocks held in Ontario and Quebec costing the dealers very high prices, also large quantities still in store in Nova Scotia and it would not be surprising if prices show a decided decline before stocks are all cleaned up this spring.

You are aware that I have never been a very great champion of the box as a package for Ontario apples. I will not say that I have changed my mind, yet it would appear that it would be advisable to use the box for a proportion of the crop. It may be that ultimately the box will replace the barrel. I would not think so, however, and I certainly would not advise a change from the barrel to the box all at once. Let the change be made gradually, and no doubt the markets will take more and more of our apples packed in boxes each year.

One of the hardest problems the apple grower will have to face this year will be the labor shortage. It is very important that western shipments of apples be completed as early as possible. Shipments to western points should be on their way in October or very early in November, and yet I know with the shortage of labor and also shortage of refrigerator equipment on the railways how difficult it is to have this done.

ELMER LICK, Oshawa: It is not my intention to take up much time discussing the crop that we may have this fall. There are two or three lessons that we have learned in the past, that is if we get a good quality of apples there is no trouble in selling them. I was speaking to a gentleman interested in fruit this morning, and I asked him "Is it possible for us to box our apples until we get more labor to help with our orchards?" It must be recollected that for five or six years we have been going down hill in regard to the quality of apples that we have been producing in the Province of Ontario. They have been getting poorer and poorer. I attribute a great deal of the trouble to lack of labor, insects and fungus diseases. If we get the kind of apples we have been getting the past few years we had better not attempt to put them up in boxes because it only brings disaster. I regret that we have not the same hold on the western market that we had on account of what has been done in the last three years. We have not been able to supply the quality of apples that the people in the west require. Whether we will be able to hold that market or not is a very serious question, and one that will call for a good deal of consideration. I said eight or nine years ago that the time would come when we would have apples at 50c. a barrel on the trees and with labor conditions so that we could get them on the market so as to advertise ourselves in the west. We have not had that condition for some years. I am not discouraged, but I feel like Mr. Johnson, and would

tell the farmer to grow feed and look after the orchard if he can. If you have a nice young orchard, of course you will have to look after it, but we have so many of these old orchards in the country that are not properly looked after. I believe that if we get a big crop of apples that some solution will be found.

H. T. FOSTER: I do not see that we have any guarantee that we will have a bumper crop in 1918. It does not strike me in that way at all. We have not had a crop of apples for the past two years, and one would naturally think that we would have a good crop this year, but considering all conditions I do not believe we will have a big crop. If we do have a big crop there will be ready sale for the good stuff. A great number of orchards have not been taken care of during the past six or eight years, and labor is harder to get this year than the past year. Therefore the percentage of good stuff will be small, and there will be no trouble in finding a market.

THE CHAIRMAN: I quite agree with what has been said as to there being a market for good apples, but our experience has shown that if we have a poor crop for two years we are sure to have a big crop the third year.

R. W. GRIERSON: Nova Scotia and Washington had a good crop last year.

THE CHAIRMAN: The crop was poor in Ontario and also in the State of New York. I travelled through the apple section of New York State last year and I was surprised to see the number of apple trees without any apples on them, and to see the trouble the fruit growers were taking with their orchards. The trees were set 40 or 50 feet apart and were well pruned and taken care of. I believe these trees will be as full of apples as possible this year, and I believe the price in this section will be very low.

DR. GRANT, Thedford: As long as I have been connected with fruit growing and as long as I have been attending conventions that same old question comes up, What will we do with the next crop of apples? It is the same old story "counting the chickens before they are hatched." I think I can safely say I will take my chances of marketing the good fruit if we have a big crop this year. A great many things may happen between now and the apple harvest. We thought we would have a big crop in 1916, and it was one of the lightest crops we ever had. Orchards that have been properly looked after will likely produce a big crop but I am afraid a great many orchards have not been looked after and they will not produce a big crop. I would not predict a big crop of apples for this year. There is no question but what the consumption of fruit in this country will be very great. I don't think our people have been educated to eat home grown fruit, but if we have the crop we will be able to dispose of it, and at good prices.

MR. ONSLOW: What about the poor stuff that won't keep?

DR. GRANT: Don't grow it.

MR. ONSLOW: Would it be possible for the Government to encourage the evaporating of it?

THE CHAIRMAN: We have a number of orchards that are not in first class condition, and that has a bad effect on the whole crop. Evaporated or canned apples could be exported, and would be very beneficial to the soldiers in France, and anything that the Government could do in that line would certainly help out.

MR. GILBERTSON, President Norfolk Fruit Growers' Association: I have been very much interested in the discussion that has taken place as to the apple crop. This year we had only about 2,000 barrels, and we have had more difficulty in disposing of these 2,000 barrels than we had in disposing of 50,000 barrels in other years. We are looking for an increased crop this fall. It has been said

that the outlook is not very bright, but we do not look at it in that way. We had our annual meeting last week and interest is dying out, and has been dying out in our Association for two or three years. Weather conditions have not been favorable to the production of a good crop of apples, Mr. Johnson seems to think that the man who takes good care of his orchard and produces good fruit will find a ready market at good prices. A good deal of the trouble in recent years has been the small crop and low returns. I think the fact that our annual Fruit Exhibition has not been held for some years now is having an effect and producing a lack of interest.

THE CHAIRMAN: I quite agree that the man who takes good care of his orchard for the next few years, will make money. He may not make much at the present time, but he will pay expenses and will reap the good profit in years to come. He will at least have the satisfaction of knowing that he is producing food that can be consumed at home, and that he will be helping to win the war. We have got to use all our energy towards winning the war regardless of whether we make any money or not. If we have a good crop it will be consumed, and if it does not make money for the grower, it will be producing results and will be helping along the Empire. I think it would be very unwise on the part of any grower who can take care of his orchard to neglect it; because there will come a time when apples will be worth a great deal of money. One reason why the consumption of apples has not been so great as it should be is that the apples from Nova Scotia have been held too high, and from the reports we are getting at the present time, it does not look as if the whole crop is going to be marketed.

MR. HODGETTS: If we should have a big crop of apples this year, would it be possible to have a conference of the leading apple growers from the different provinces at some central point so that the distribution might be worked out more equitably. You will remember that last year the British Columbia growers thought there was going to be a big crop, and they sent down a delegation to try to induce the Government to put an embargo against American apples. I read a report of the British Columbia Convention held a few weeks ago, and they seem to have the same idea this year, that they are going to have a big crop, and they are going to try to get us to back them up in securing an embargo against American apples. If we could have a conference of all the Provinces, it is possible that we might come to some arrangement that would insure the apple growers against loss.

MR. JOHNSON, Dominion Fruit Commissioner: So far as I am personally concerned, I would be very glad to have a meeting of the large apple growers of the Dominion to discuss these questions of importance to the apple growers of Canada. I would first have to secure the consent of the Minister of Agriculture. If there is a big crop of apples I can assure you that the Government will not lose sight of the necessity of taking some action. It is a question whether it would be wise to place an embargo on American apples. I am not speaking officially. Our Nova Scotia friends may be looking to the United States market for next year. At their convention held a few weeks ago they passed a resolution asking the Dominion Government to fix a standard barrel for the whole of Canada. I think it is the same size barrel as is used in the United States. Nova Scotia fruit growers find it impossible to ship their apples to the United States owing to the fact that their barrel is so small that it will not be accepted. If they were to adopt the barrel that is used in New York State I believe there would be a very large sale for their apples in the United States. We did take into this country nearly five hundred thousand barrels of apples last year, against a duty

of 90 cents. I can assure you that we will be glad to have a conference and we will look into these matters seriously.

MR. GRIERSON: I quite agree with the Fruit Commissioner, I think if we can sell our apples against a duty of 90 cents we ought to be able to make good. If the United States were to put an embargo on coal coming into Canada it would be a very serious thing for our people. I do not think it would be a fair proposition to give the apple growers any better advantage than they have now over the American apple growers. If we cannot meet them with our product we had better get out of business. I do not anticipate any difficulty in marketing all the good fruit we will have. I think the suggestion Mr. Johnson made two years ago is a good one; that the Government and the towns and cities might get together and help market the fruit. If apples were sold at 50 cents on the tree even then with the high cost of wages, they would cost the city people quite a sum, but if we had some system of cheap transportation and delivery they might be got to the consumer at such a price that a large amount would be consumed. The apples might be shipped to large manufacturers who would sell them to their employees at cost.

THE APPLE SHIPPING ASSOCIATIONS AND THE 1918 CROP.

F. C. HART, DIRECTOR MARKETS BRANCH, TORONTO.

One speaker mentioned that the Association has not been as alive during the past three years as it previously was, and that is an indication of one of the most important points that I think we should consider in this matter of the marketing of our apples; that is the importance of continuing of our Marketing Associations in spite of adverse conditions. During the last three years there has been a decrease in interest in these associations. If we did happen to have a large production we would not be in as good shape to handle the crop as we were three years ago.

Another point is that the large proportion of the apple crop of the Province of Ontario is not produced by members of the Fruit Growers' Associations but by the average farmer. We depend largely on the members of the Fruit Growers' Associations for the quality of the fruit. We lost the western markets owing to the poor quality of the fruit. It is said that owing to the difficulty of securing labor the orchard will be neglected. I think a great effort should be made to keep our markets supplied with a good quality of fruit so that the market will not be lost. It has been said that you cannot count your chickens before they are hatched. But there are indications of a large crop this year and there is no doubt that the apple associations will be able to market that crop.

There undoubtedly will be a large quantity of low grade apples, and I think some consideration should be given to these low grade apples. It would not be good policy to move these low grade apples to the West as raw fruit, especially under the transportation difficulties that we are likely to have in the fall. It might be impossible to move a large crop of low grade apples to the West in the fall. There is a problem for this Association, in connection with the Food Control Office to take care of a large crop of poor grade apples. I do not know that I have any suggestions of importance as to the solving of that problem. There are in the Province of Ontario one hundred canning plants, fifty cider mills and about one hundred evaporating plants that possibly might be used more largely

than they are at the present time to take care of this No. 3 grade fruit. There is a large market for this type of fruit in the West. I have made inquiries, and I find that a large market could be worked up for apple butter in the West, and at exceptionally good prices. Any scheme to take care of the No. 3 apples is going to have a good effect on the price that you will obtain for the good fruit.

Q.—Don't you think that apples might be used to quite an extent in making jelly? Apple jelly could be shipped across the water to the boys in the trenches.

MR. HART: I think a good deal could be done in that connection. I have been bothered for sometime by men coming into my office and taking up my time discussing the blueberry question. There are carloads of blueberries in the North, and it is criminal to allow that fruit to go to waste. Blueberries by themselves don't make the best of jam, but if mixed with some other fruit they make an excellent jam.

PROF. CAESAR: We are not apt to have much trouble with the codling moth this year because they have been starved out. I can remember that after a few years of poor crop that we had an exceedingly good crop and it was a clean crop, simply because there were not the moths. That is one of the principal things that spoil our apples, and if we are not likely to have the scab very bad this year, the quality of our apples will be much better than you seem to suppose.

MR. HENRY: A year ago we made some apple butter. We have a nephew in France, and we sent him some of this apple butter in a glass sealer and he was highly delighted with it. I think that would be one way of getting rid of a lot of the poor apples.

MR. SHOURDS: We had a great scarcity of apples this year and I had to pay a big price for the culls. I paid more than I have to pay for No. 1's and No. 2's to-day. Now, if we get double the price we formerly got for our evaporated fruit there will still be no profit in it. Our profit has all been in the waste, we got for our waste this year what we formerly got for our evaporated apples. An evaporated apple is one of the most condensed forms of food, we simply take all the water out of it, and you put the water back and you have the apple where it started. The evaporators are not doing what they should for the simple reason that we are not able to export anything, and the people in this country are not educated to eat the product. I have not shipped a pound to the West or Vancouver. I still have my stock on hand, probably about \$40,000 worth of apples and by-products. If we should have a bumper crop next year, there are 150 evaporators in the Province, and if we were assured of a price we could handle all the No. 3's and the culls. There are more apples in Ontario and Nova Scotia to-day than there should be, and if we could get the fuel to dry them we could handle these apples now. The evaporator trade does not come into its own until the other apples are out of the way. I look to see evaporated apples worth 25 cents a pound. Owing to the high price that we had to pay for apples there was only about one evaporator out of fifteen that attempted to do anything. I do not know anything about this apple butter business, but when I was a boy my father used to make up a barrel of it and it would last until the next spring. It takes the place of butter. I can tell you it is great stuff. I will venture to say that not one in a hundred know the taste of apple butter. The Dutch apple butter is put up in barrels and it can be carried indefinitely. I think it would be a good thing to look up this apple butter business. We are going to have a fair crop of apples next year as far as I can judge.

ELMER LICK: When you are marketing your evaporated apples what competition do you have from "gallon apples?"

MR. SHOURDS: The hotels prefer the gallon because all they have to do is to knock the top off the can and it is ready to go into the pie, but when you buy gallon apples you are practically buying water. That is about all you get.

THE LABOR SUPPLY IN 1918 FOR THE FRUIT AND VEGETABLE FARMS.

DR. W. A. RIDDELL, TORONTO, DIRECTOR ONTARIO GOVERNMENT LABOR BUREAU.

Nothing is more inspiring than the many examples that we see of the response of the call to country and to the cause of democracy. The response of our women to the call for war work has been very inspiring. Probably few fields are appealing to the women like the call to work on the land. Last week I had the privilege of appearing before a large audience interested in food production in the city of Boston. There they are beginning to organize their women just as we did last year. We are organizing, at the present time, women workers to go on the land, and I know that great sacrifices will be required of these women because I am a farmer boy and was brought up on a farm, and am operating a farm at the present time, and operating it with more or less success.

The food situation is one of the most serious confronting the Allies. Nothing will break down the morale of our Allies more than hunger. The military organization is only one factor in the war. The ultimate decision may well rest with the workers on the land. It has been said that success will come to the country that can put the last one hundred thousand men in the field, and it has also been said that there is no use putting the last one hundred thousand men in the field if their stomachs are empty. The President of the United States has recently said that to provide adequate supplies for the coming year is absolutely of vital importance. We cannot get too much into our minds the absolute necessity of more food production. Lloyd George has said "The plow is our hope," and he said to those going to work on the land "Do your work with your strength and experience," and I think those who go out to work on the land do so using all their strength. Many of the girls who went out last year did their duty almost beyond their strength. If the food situation is as serious as it is and if food production is as essential as it is no effort can be too great in order to secure an increased food production, and in no case should the sacrifice be all on one side.

Last year we succeeded in one way and another in putting between 15,000 and 18,000 people on the land in different parts of the Province. The labor problem is at the very heart of this matter of production. The labor problem is the key-stone in the arch of increased production. We might maintain our food production without getting additional labor, but I doubt if we can increase it. It will not be for the lack of farm equipment or for the lack of farm lands or agricultural equipment, nor even expert farm management, but it will be for the lack of farm labor. I could tell you if I had time why the problem of getting labor is becoming so difficult. It was difficult before the war due to many conditions that you fruit men and farmers could not control. It seems to me that it was a problem of better organization. The city organized before the country. I grew up with the grain growers' organizations in the West. I have hauled wheat to the little station where

the organization grew up in Manitoba, and I went through that period of depression, or oppression, if you like to call it that. I was talking to a leading farmer in the United States and he said: "There is only one thing we will have to do if we are going to get labor, and that is to hold up for a higher price for our product and pay higher wages." I do not think that that is going to meet the situation in Ontario, because I do not think it is possible to adjust our machinery quickly enough to meet the emergency in that way. It is a difficult question to get the city man to go to the country when he has to go at a loss; that is the first thing that we have to look at in studying this question. We have had undue competition for wages. I could take the records in our office and show you how wages have climbed step by step, even in the last year.

We have in Ontario between 150,000 and 175,000 farmers. We have already, by voluntary enlistment, sent 193,281 men from Ontario or approximately one man in every three between the ages of 18 and 45. That has created the problem of shortage of labor. Notwithstanding that, through better organization and better methods you have been able to increase the acreage in the Province of Ontario by 173,488 acres. I think that is an excellent showing. Now the women are prepared this year to step in and take the places of those men that have been withdrawn. We have under way a number of schemes to meet the farm labor situation. We are going to try to get a great number of men for our mixed farms, and I believe we are going to succeed. I am not in a position to-night to say how we are going to do that. It will require some sacrifice on the part of the men and on the part of the farmers. You cannot ask one group or another group to go all the way. If I go to Mr. So-and-So in the city who is working in a warehouse and drawing \$100 per month, and who has had some farm experience, and ask him to go and work on a farm for \$40 or \$60 per month, he is not likely to be willing to lose \$40 per month. On the other hand the farmer should not expect to make as much profit out of that man's work as he would out of an ordinary hired man. If we are going to meet this crisis as we should there has got to be sacrifice on both sides.

This idea that we should get men for farm work for \$1.10 per day is absolutely unsound. If the man is working in defence of his country it is another thing. To ask a man to go and work for a farmer for \$1.10 per day is economical nonsense. No government and no group of people would be justified in trying it out. It is wrong, and it could not be thought of. There is a great deal of difference in taking a man's service in defence of his country where no profit is made, and taking a man's service and placing him at the disposal of a private employer who would make private profit out of that man's sacrifice.

The labor that you are most interested in is the group of women that will be recruited this summer. We are planning to recruit between 5,000 and 6,000. I believe we can get that number. These women will work to the best of their ability and I believe their ability should not be under-estimated, neither should their work be underpaid. The farm labor side of our work does not represent more than one half of our work. If a woman can do two-thirds of the work that a man can do then she should be paid two-thirds of what the man gets. If she can do as much work as the man then she should be paid the same as a man. I am sorry to say that there are men who will put on women instead of men and put them on at an undue profit to themselves.

Last year our efforts were directed first of all to meeting the labor situation on the mixed farms. We put on a campaign to induce men to go out for the season and it was surprising the response we got. We put out about 2,500 men in that way at various times. We put out about 6,000 men at harvest time. We appealed

to manufacturers to give up as many of their men as possible and to pay the difference in wages, and that was responded to in many cases, and I think the men gave fairly good service.

A MEMBER: Do you think that is a better way than to have the Government pay the wages?

DR. RIDDELL: The question of the Government paying the difference seems to me to be the worst from the standpoint of the farmer. It would upset your whole labor situation. You would have to do it in every case. Not only the man from the city but the man working on the farm. Supposing Mr. Jones from the T. Eaton Company went out to work on your farm, and he had been getting \$125 per month with the T. Eaton Co., and you paid him \$50 per month. And if you had a man working on your farm who could do more work than the city man, he would want the same wages with the Government allowance as well. Otherwise he would say to you "You are taxing me to give that other man twice as much as I am getting, and I can do more work than he can on the farm." You would be doing that just because this farm man was patriotic enough to stay on the farm instead of going into the city to make higher wages. I do not know of any government that is doing that at the present time. The British Government has put a fixed guaranteed price for a certain period, and has fixed the minimum wages.

The boys' campaign which practically originated in this Province, and which has spread all over the Dominion and into the United States, met with great success last year. The Federal Government have thought so well of it that they are making it a Dominion-wide organization, and inside of a few weeks the campaign to recruit boys will be started from one end of the Dominion to the other, and it is hoped in that way to enlist thousands and thousands of boys between the ages of fifteen and nineteen. We got between 7,000 and 8,000 boys last year. We sent them out at the minimum rate of \$12. The average wage paid to boys was \$18, and the wages ranged from \$12 to \$40 per month. The farmers, on the whole, treated the boys very well. I think it was a splendid thing, the attitude of the farmers to the boys. It was a big undertaking to take boys from homes in the city, many of them where the boys had been sheltered. There were very few complaints. I think on the whole the response of both the farmers and the boys was splendid. We are trying to double the number this present year. We hope to get 15,000 boys. That is more than all the boys in our high schools, but we believe we can get them.

I suppose you are interested in labor for fruit farms. The question of rates is something that your committee have had to consider, and I trust it will be settled in a satisfactory way. I want to congratulate the fruit growers of Ontario on the splendid way they responded to the innovation. It was new to take a lot of city girls and put them out on fruit farms. The majority of the girls I spoke to were enthusiastic over the treatment they received. The saving of food was the direct plea that we put to the girls of this Province. It was not a question with many of the girls as to whether they could make as much as they could in other lines, but they wanted to help in food production and they were willing to make the sacrifice. Now we have to face the problem this year, and I think you are prepared to face it, and I believe both the girls and the fruit growers are prepared to give and take. We are going to put out an appeal: "Five thousand women workers wanted on the farms of Ontario for 1918." One woman said to me last night, "My daughter went out last year and I had to send her money to bring her home." That is one thing that would knock our campaign to pieces. Therefore, we must make the inducements so that they will be accepted by the girls.

It is not the business of the Government to fix or regulate wages. We try and
4 F.G.

bring the employer and the employee together. That is the only authority we have. I have men 'phone in and say: "I want a thousand men," and another may say, "I want 500 men." They tell me the rate they want to pay. And if it is not sufficient to induce the men to accept the employment I tell them I cannot get the men at that wage. They may say, "We want men and we cannot afford to pay more than 40c. per hour." Well that is all about it; we say we cannot get the men at that wage. We may advertise and get some, but when you come to launch a campaign where you are drawing on an almost entire new group of workers you have got to have some definite proposition.

Now in my judgment the inducements offered last year are not sufficient to enable us to do what we want to do. On November the 1st we had a meeting of 200 fruit pickers held at Toronto, representing 440 girls who were out last year from Toronto. The majority of these girls had only paid from \$2 to \$3 to get to their work, whilst others had paid as high as \$35. At this meeting a committee of the girls was appointed to meet a committee of the fruit growers at St. Catharines, which meeting was held on the 5th November, where they asked the fruit growers to provide housing accommodation for the girls. That was not agreed to at that time. Another meeting was held in Toronto on January 23rd, at which they came to almost a deadlock, and we have been waiting as a Government organization to find out what was going to come of these negotiations. I was glad to learn to-night that to some extent arrangements had been come to.

For the information of the meeting I might say that last year we sent out 1,250 women, of whom 850 were housed in camps that were run by the Young Women's Christian Association. One hundred were placed on farms and boarded at the farmers' homes. Three hundred were day workers, and went out from their homes in Hamilton and London. Last year we were very fortunate in getting the Federal Government to loan us tents, I hope they will be available this year, but I am not sure. The question of housing is closely wrapped up with the question of wages. When I speak of housing I mean providing a small cottage that will accommodate twenty-five women. Twenty-five seems to be an economic unit. The distance the girls have to go to their work has to be considered. The moving of the equipment and the providing of cots can best be done by the local growers. It is difficult to secure a waggon to transport the luggage from the station. Sometimes the girls were asked 50 per cent. more than it was worth, and this could be provided by the local men. The fruit growers could also put up the tents and dig a trench around them so that the water will not get in. This means that you will give your work instead of your check for this part of the work. This year it will cost more like \$5 per week to board the girls owing to the increased cost of food. I think a great deal can be done towards doing away with the heavy rents we had to pay last year by the fruit growers securing the cottages.

The Y.W.C.A. have offered to assist us this year to a greater extent than last year, although they lost \$3,000 last year. Even if the camps are run more cheaply this year than last year, the cost will be from 10 per cent. to 20 per cent. higher owing to the increased cost of foodstuffs.

Twenty-seven per cent. of the girls sent out last year were university students, 17 per cent. older girls, 14 per cent. high schools girls, 18 per cent. teachers, factory and munition workers 8 per cent., office workers 5 per cent., music students and teachers about 3 per cent., house workers about 2 per cent., others about 7 per cent. Thirty-one per cent. of the girls who went out were in their teens, 57 per cent. in their twenties, 5 per cent. nearly thirty, and 2 per cent. nearly forty, and about $\frac{1}{2}$ per cent. over fifty. They did a great variety of work, picking, packing fruit,

and shipping, cutting out raspberry canes, cutting out grape vines and training them. They also planted potatoes, hoed, dug potatoes and drove the cultivator, and in some cases plowed. They raked the hay with horse rake and in some cases pitched hay, but I would not advise employing girls to pitch hay.

This is a summary of the wages paid per week: 3.5 per cent. received under \$4; 18 per cent., \$4; 30.25 per cent., \$5; 24 per cent., \$6; 12 per cent., \$7; 4.25 per cent., \$8; a little over 2 per cent., \$9; a little over 2 per cent., \$10; almost 2 per cent., \$11; 1.77 per cent., \$12 or over. That is to say 54 per cent. of the girls received between \$5 and \$7, which netted them from \$1 to \$3 per week; 48 per cent. received over \$6; 51.75 per cent. under \$6. These include only those of whom we have records, and who worked from three to four months. There are many short term girls whose wages are even lower. I have tried to present the situation to you, not in any way to try to thrust anything on you, but merely to show you that the Government is prepared to do its utmost to endeavor to secure labor for the farm. The Government is willing to spend money and have a big campaign in order to secure labor for you, but it seems to me that it is your part of the work to put forth your very best terms, so as to help us in going out to try and secure the girls. I think you will agree with me in saying that the Government must be careful not to try to capitalize the patriotism of the many in favor of the few, or to give any impression that it is doing that very thing. That is one thing that would injure our recruiting campaign. We need food and I think we are going to get the workers. I believe in the patriotism of both the worker and the farmer and fruit grower, and I think we are going to succeed without any doubt.

THE CHAIRMAN: It is utterly impossible for the farmer to figure out and pay the hired help the same as a contractor. I have been a fruit farmer, and Dr. Riddell knows that the farmer puts in long hours each day. I saw a fruit grower drawing peaches to the boat at two in the morning, and that same farmer has not made one dollar in the last two years. Under these conditions I want to know what encouragement there is for the fruit grower to continue in business at all, if it is not for the patriotic duty we owe the state. If it comes down to dollars and cents, I do not think there is much in it. As manager of the St. Catharines Cold Storage, and doing business for 530 people, I would not like to tell you how many of them cannot pay their debts. If a contractor takes a job and finds he cannot get men to do the work so that he can make it pay he goes back to the man and says I cannot do it for that money, you will have to pay me more. What can the fruit grower say? He has to pay wages before he knows whether he is going to get any fruit or not, and then when he does get it and picks it he has to sell it, and if he gets \$1 per basket he is all right. But if he cannot get the price he has to lose money.

MR. CARPENTER: If you walk through the fruit district you will find little plots of ten or fifteen acres that have been abandoned and the man has gone to the city because he has not been able to pay his way. He can get \$6 and \$8 and \$10 per day in the city, and he has had to leave the farm and go to the city because he could not hire help. I think the fruit farmer is about the poorest man there is in the country. We don't want these girls to come out and work on the fruit farms for nothing. We want to be fair with these young ladies. I think they will be able to do their duty much better this year than last.

MR. BAKER: I have eighteen acres at London. I have ten acres of fruit, and last year I was told that I could get high school girls from the city. I got a cottage fixed up for them and everything that they required. I gave them vegetables and everything, and they made a picnic of it. They came out and picked my fruit and ten of them stayed there six weeks, and part of them were with me eight weeks, and

it was a great success. I made money out of it and they were well satisfied. They cleared something like \$2 each a week after paying all expenses. That has been my experience, and perhaps it is a bright spot in view of what has been said.

MR. GIBSON: We have a Fruit Growers' Association at Newcastle, and we had the honor of selling our apples to the Government this year to ship to the soldiers. We got the ladies from Newcastle to come out and pack them in boxes—young ladies who had never packed a box of apples before. They started on cherries first and then plums, pears and then apples. We gave them \$1.75 and \$2 per day, and brought them in and took them home each day. They brought their dinners with them and worked from eight in the morning till five at night. They were well satisfied, and if Mr. Kydd is here I think he will say they did their work well.

MR. KYDD: You might think that was big wages, but these girls would average sixty boxes per day of apples, all wrapped. The work was well done, and I don't know where you would get together a better bunch of workers.

THE CHAIRMAN: Some take to the work better than others. It is impossible to pay them all the same wages, because one might be worth twice as much as another. Our work has to be done in a rush, and if we can get a girl who will work quickly she is worth a great deal more. I know that good work was done by the girls last year, and it can be done again. Last year we had a crop, but it took all the proceeds to make up for the losses of the year before.

MR. PATISON: Dr. Riddell put up the bluff at St. Catharines that the girls were going out to work on the grain farms this year. The farmers and their wives on these farms work from five in the morning till dark. How will you get these girls to work on these farms where the work is twice as hard as it is on the fruit farms? There is no doubt that the National Service did a great deal better than anybody expected they would do. In many cases they were an expensive luxury to the fruit growers last year. I do not think any of the girls are worth 25c. an hour. You must take into account the labor the farmer has already on his farm that is worth twice as much as the work of the National Service girls, and he only pays this labor 15c. per hour. The fruit grower simply cannot pay 25c. per hour and make any money.

MR. JEMMETT: I think perhaps Mr. Patison is a little hard on the National Service girls. I had quite a lot of them last year picking berries, and I never had a better lot of girls or labor of any kind around me in my life. Of course these girls cannot be expected to run a fruit farm. I had twenty-five or thirty girls and I got them for berry picking, but I used them for planting. The first girls I got were too young, they were about sixteen years of age. They would work well, and a couple of them would do more work than a hired man. But you could not rely on them, they would feel like working one minute, and the next minute you would see them hiking off with the farmer's son away down the sideline. The next bunch I got were from Hamilton, and a more faithful lot of girls I never saw. They worked honestly and did very good work, but of course they could not pick as many berries as the local women who had been used to it. I hope to get a number of these girls next year. We have a lot of raspberries and you know how difficult they are to pick. I would not mind paying these girls more than they are worth for the sake of saving these berries from going to waste. Of course if the farmer was like the railways or the munition manufacturers all he would have to do would be to go to the Government and get his bonds endorsed.

MR. TERRY, Clarkson: The fruit growers of Clarkson had a little experience with the National Service girls, although personally I did not use them myself, because before that proposition was brought before the fruit growers of Clarkson

district I had already made arrangements for my pickers. We have had a number of girls from Hamilton for the past five years, and in addition to that we have had them from as far east as Lindsay and Millbrook, and I must say that we never had as much satisfaction as we had last year. We take our berry pickers right into our home, and give them our home, and if there is any one to go out doors in tents we are the ones that go out. We pay the pickers a cent a box for strawberries, give them their board, and take good care of them. When the berries begin to get a little scarce we pay them a cent and a half, and when they get a little more scarce we pay them two cents. I never wait till they ask for a raise of pay, and last year at the end of the crop I gave them three cents per box and their board. For raspberry picking we pay two cents per box and their board.

We never have any difficulty in getting pickers, and never have any difficulty in keeping them. They stayed with us last year for the eight weeks, and they averaged \$6 per week clear of all expenses. We gave them their board and their rooms and gave them the use of the washing machine and electric iron for ironing, and everything that they required to make them comfortable. If it rained they got their board, and if we only had a half day's picking, we got out the car and ran them down to the lake for the afternoon. They did no hoeing or work of any kind except fruit picking. During the strawberry season I do not think we had one full day's picking. We had a lot of pickers, and we did not have enough berries to keep them all going, but we always found the girls ready for their work and they were well satisfied. I don't think there is anyone in the country can get my pickers away from me for this coming season. I feel satisfied that they will all be back.

We had one girl, a school teacher from Millbrook, who had never been on a farm before, and I have seen her picking berries all afternoon with the tears running down her face, too much grit to give up. When I advised her to go in and take a rest she said: "I came out here to help, and I am going to stick to the job." I was told a short time ago that her fellow pickers had to carry her upstairs to bed more nights than one, but she stayed till the end of the season. One young lady said to me, "I have had a good time, but I do not expect to be back next year. I am going to marry a farmer soon, but I will see to it that there are no strawberries grown on our farm." (Laughter.) I think the girls deserve all kinds of credit. There was a great bunch of them out at Clarkson, and they gave very good satisfaction.

I am sorry to hear so many of my brother fruit growers say that there is nothing in fruit growing. We at Clarkson have a better story than that to tell. I do not know that we are any better farmers than you are across the Lake, or that we have any better land, but I do know that we can grow fruit and make money at the prices we have to pay for picking. We are not getting wealthy, but we are satisfied. I do not know what other people paid for picking. I like to look after my own business. But I feel satisfied that I will have all the pickers I want this year.

MR. FISHER: I desire to help Mr. Terry clear up the impression that will no doubt go out from this meeting that we are a bunch of hard-up citizens. I do not think any person can look in the faces of the members present and say that they look as if they had suffered privations of any kind. Although probably we are not making a great deal, I think we are all getting the share that is coming to us, and like Mr. Terry I believe that labor well used and well paid will give a satisfactory return.

DR. RIDDELL: I am sure I appreciate entering into this testimonial meeting. One or two things have been said that I do not think are fair. One or two remarks

have been addressed to myself and the Branch that I represent, as if we had dictated the prices that were to be paid. Now I want to state clearly and plainly that that is absolutely false. I had to get a report from some one who had attended both meetings in order to know what the terms were. I want to make it perfectly clear that these terms are not my terms, we have nothing to do with making terms, all we do is to try and bring the parties together.

MR. BROWN: Will the high school pupils who were allowed to go out last year be allowed to do the same this year?

DR. RIDDELL: Practically the same regulation is in force this year that was in force last year. This year, the boy who was out last year and is going up for his final examination will not be permitted to go out.

THE CHAIRMAN: We are indebted to Dr. Riddell for the information he has given us.

STRAWBERRY GROWING IN PRINCE EDWARD COUNTY.

HOWARD LEAVENS, BLOOMFIELD.

Strawberry growing in Prince Edward County has grown to large proportions in the last five years, owing to a large extent to the demand by the canning factories for the fruit at good prices. There are from fifteen to twenty factories in the county, and although there are not enough berries grown to supply all the factories, enough factories run on them to take all that are grown. In fact the Dominion Cannery, not being able to get enough berries from outside growers, have been growing a large acreage on their own farm.

The prices paid by the factories have been good, averaging about 9 cts. the last three years. Last year 10 cts. per qt. box was paid for the whole crop. Some growers ship their berries, but the high prices paid at home has not warranted very heavy shipping, as at least 4 cts. per box more must be realized in order to pay the extra expense of boxes, crates and express. Also in shipping berries a great deal more care has to be taken in filling the boxes and sorting the fruit, as the factories will accept fruit that will not ship, when they are getting the whole crop. Also at the end of the season as well as after a rain there is a certain amount of fruit not good enough to ship, and taking this all in consideration at least a margin of 4 cts. is needed to break even with the factory price.

There is considerable land well adapted to growing berries around Picton and Bloomfield, as well as in the western part of the county. This land is mostly loam and some black ground. Usually a heavy coat of manure is applied to the land the previous season to setting the plants and a hoe crop is grown to clear the land of weeds. Very little fertilizer has been used in the county, most growers depending on manure. Potatoes have been a favorite crop to precede as well as follow the strawberry crop.

The main varieties grown have been the Wilson, Senator Dunlap and Parsons' Beauty. Possibly 75 per cent. of the berries grown are the Dunlap. The Wilson is not as heavy a yielder as the other varieties and is a softer berry. The main objection to the Dunlap is the white tip, which affects the appearance of the fruit in the can. The Parsons' Beauty is a deeper red all through, and shows up better after being canned, although the Wilson has the best quality of the three varieties.

Season before last a blight affected a large number of patches and after two or three pickings the plants wilted and died. This blight affected practically all

varieties except a few plantings of Wilson berries and they seemed immune, a full crop being harvested from them. Whether this was due to the variety or the land or conditions under which they were handled I cannot say.

Some growers in setting the plants, especially where a number of acres are set, are using the tomato planter for this work. This machine with three men will set and water from 12,000 to 18,000 plants a day, and those that have used it claim that it is equal to hand setting as well as the saving of a great deal of time. We have found it pays to set plants as early as possible in the season so as to give them a good root before too much dry weather sets in. We have not tried setting in the fall, but believe that early spring setting suits our conditions best. Where the land is fairly clean of weeds two crops are taken off before the patch is ploughed up although the second crop is not expected to be as heavy as the first.

Some plow two furrows through the centre of each old row and cultivate this down after the first crop is harvested, and if the season is favorable the new plants will run during the fall, which makes a patch for another year, practically as good as a new set patch. The weather conditions have a good deal to do with this practice, and also the conditions of the land. Sandy loam can be plowed at any time, but some of the other soils, especially if there is a clay mixture, have to be plowed after a rain and this does not always come at the right time. We find it necessary to cover the plants in the fall with a coating of straw for two reasons. One is in the spring if the plants are not covered they are apt to heave out of the soil during the freezing and thawing weather, and also if there is not straw around the plants at picking time the fruit will be very gritty and dirty, especially after a shower which spatters the soil on the berries and makes them unfit for use.

The yield of berries varies a good deal according to the care and attention given the plants and the season; one grower putting in as high as 10,500 quarts into the factory from one acre and another 18,000 quarts from two acres. These parties make a specialty of berry growing where some other growers having strawberries more as a side line have not had as large yields per acre, but possibly have not put on the same expense per acre. There is a good outlet for berries in shipping them by boat from Picton to Kingston, Gananoque, Brockville and some of the smaller places along the boat route, as well as direct daily trains to Ottawa and Toronto, although Toronto is not so good a market for us as the Niagara fruit generally fills that market.

So far there has been sufficient help for picking the crop. This help comes from the villages and town, and also a good many families are moving in about that time preparing for the factory season, although each season it is getting scarcer and the cost of the handling of the crop is greater.

MR. PATISON: Do you use straw to cover your strawberries?

MR. LEAVENS: Yes, nothing else. If the straw is not threshed real clean, you will sometimes get a crop of grain as well as berries the next season. The yield of berries varies very much. I know some growers that have received as high as 10,500 quarts from an acre.

Q.—What is the average crop of strawberries per acre?

A.—I could not give you a general average, but my average would be nearly 4,000 quarts per acre. We have been in the habit of selling plants, and we merely pick the patch that is left.

THE CHAIRMAN: We have heard this address, and I think we can devote a little time to discussion. The strawberry is one of our best and possibly the most profitable fruit that we handle. I think with the exception of the drawback in

getting pickers, there is more money made out of strawberries than any other crop we handle.

MR. FISHER: What does it cost to produce a quart of strawberries?

MR. LEAVENS: I could not give you any statistics. I think you would have to ask the Department of Agriculture a question like that.

MR. PATISON: Don't you think your average of 4,000 quarts a little too low?

MR. LEAVENS: No, I do not. Last year I could not say what it was; but we had a very poor season.

Q.—You mean that average for one season, not for a number of years?

A.—I mean that average for a number of years. We did not have 4,000 quarts last year.

Q.—What did you pay for picking?

A.—We paid 1c., but last year we paid 2c. after the first two or three pickings. We started in at a cent but we found that was not enough.

Q.—What could a picker earn in a day?

A.—Some good pickers would pick 150 quarts, but more would pick from 75 to 100.

Q.—How wide are the rows?

A.—Four feet apart, and we put the plants about 20 inches in the row. We set our plants with a tomato setter, and 20 inches is about as close as we can set them. The machine goes pretty fast, and it is hard to get a team to walk slow enough to plant them.

Q.—How wide do you allow them to run?

A.—Just so that you can get through with the cultivator, about 18 inches to 2 feet between.

Q.—What kind of berry do you grow?

A.—I have been growing the Wilson. They are similar to the Dunlap.

MR. FOSTER: I would like to know if there was anybody in the room who could tell what it costs to grow a box of strawberries? If we knew the cost of producing our stuff, then we would know what we could afford to pay for harvesting it.

A MEMBER: Can you produce a quart for 7c.?

MR. FOSTER: No; you cannot at the present time. A few years ago I figured it out and I made it 6c., but the cost has advanced more than one cent since then. I think the average crop Mr. Leavens has given us is a little low. I do not claim to be an expert, but I can do a little better than that at home. We have had exceptional crops where we have got 11,000 boxes to the acre. We never had a berry that gave us as good returns as the Williams, but Mr. Kydd will take exception to that.

MR. KYDD: You never grew anything that the people hated to eat worse than the Williams.

MR. FOSTER: We know it is not the best berry for the people, but for shipping and canning it is the best berry. If we are going to produce berries at a profit we must produce quality and clean berries, and in order to do that we have to take care of our plantations. Anybody who has grown strawberries knows that that costs money, and it takes three years to get two crops.

A MEMBER: Why not find out the cost of growing an acre of strawberries?

MR. HORNE, Clarkson: I think the conditions of the soil have something to do with it, but I think it costs me 7c. a quart to grow strawberries. We know that other people can grow a bigger crop than we can, and therefore it would be difficult to come to a definite conclusion on the subject.

THE CHAIRMAN: Some soils will produce more berries than others. The question we are trying to get at is a very important one, but the difficulty is that we very seldom get two seasons alike, and we will have to take the average for a number of years. Sometimes a grower will start to figure out and keep track for one or two years, and then discontinue, and the result is that they only have the cost for those two years, and do not know the average cost.

MR. ONSLOW: If you have the most suitable land for growing strawberries, you will reduce the cost. I think it is up to the Department of Agriculture to institute a system somewhat the same as they have in New York State of getting the cost of the production of all crops. In that state they have officials to go around and tabulate the cost of production on different kinds of soil. If they did that in Ontario we would have the best idea of what kind of soil to grow crops on, and how much it would cost us to grow them.

MR. PATISON: I think it would be well to have a small demonstration plot in each strawberry section, and then they would be able to give exact figures for that section.

THE CHAIRMAN: The trouble is that when the Government undertakes to carry out an experiment on a small plot, they get remarkable results, and those results are not borne out by the actual work.

MR. ONSLOW: New York State take the farmers' crops for the season and average them up. They do not have any experimental crops, but the actual crops grown by the farmers.

MR. GRIERSON: What is the most suitable land for growing strawberries—light, heavy or loam?

THE CHAIRMAN: My own preference is a rather light soil.

MR. KYDD: Go to Clarkson and see the kind of land they have there, and then you will know the kind of land to grow strawberries on.

THE CHAIRMAN: Some strains of Williams are not as good as others. There is such a thing as growing good Williams strawberries and bad ones. You can grow turnips that are not fit to eat, and strawberries are the same.

MR. KYDD: What kind of berry does Mr. Terry grow?

MR. TERRY: The Glen Mary.

THE CHAIRMAN: It is a better berry than the Williams, but won't carry so well, and it will not produce in some sections.

MR. TERRY: If it is a question of growing a box of strawberries, I would like to say I am not much interested in figuring out what it costs to grow a box of berries. What I do is to put in a patch of berries and work among them, keep stirring up the soil, and at the end of the year, after all expenses are paid, if I have \$2,000 or \$3,000 to my credit, I know that I have made money. We find at Clarkson that on our soil, with the quicksand subsoil—which is a moist soil—that it does not make any difference or only very little difference what kind of a season we have, unless it is an extremely wet season. We will get a good crop if it is extremely dry on our soil. Mr. Horne is about a mile from us, and they have a different kind of soil. They can grow tomatoes or corn, but when it comes to growing strawberries, they are not in it.

MR. PATISON: Is not it also a fact that you are exceptionally well situated in the matter of getting a heavy amount of manure?

MR. TERRY: We are convenient to the station, otherwise anyone else can get it just as well as we can. We feed the land highly. It would be a difficult matter to feed too highly. You may have just as good a cow as ever lived in a stable, but

if you do not feed her, you will not get results, and it is the same in growing strawberries. If you do not feed the land you won't get the strawberries.

MR. PATISON: With that particular kind of soil, if you were in a part of the country where you could not get manure in large quantities you would not get results?

MR. TERRY: No, I do not think there would be any money in trying to grow strawberries on that kind of soil unless you could get manure.

MR. BAKER: I live near London, and I have clay loam soil. I am unable to get manure, because two of my boys are at the front, and last year I had to use fertilizer. I had no manure on my strawberry patch last year, but I secured quite a bit of money out of it. I have always found that until I get 10c. a box or over, there is not much money in growing strawberries. I have grown strawberries for a number of years. Last year we got a good big price. If we get less than 10c. we lose money.

I would like someone to tell me what fertilizer is the best to use on a clay loam soil when you cannot get manure. I got a lot of fruit last year, and I grow the Glen Mary strawberry, which is an ideal berry for a clay loam soil.

THE CHAIRMAN: I can remember when the standard price for strawberries at the factory was three cents a box.

MR. KYDD: The beginner in growing strawberries ought to be careful to get a variety with long roots. There is a great difference in the length of roots of strawberries. Take, for example, the Warfield, which has very short roots. It will not do in a dry season, but will give a good crop in a wet season.

MR. BAKER: I can grow a good crop of the Glen Mary on the soil we have, but we must have moisture for strawberries.

MR. PATISON: Did you ever try mulching?

MR. BAKER: Yes, but it does not make any difference in dry weather.

MR. HODGETTS: What is going to be a fair price to pay for picking strawberries this season?

MR. HARRISON: You cannot set a general price. One grower may have a good crop and the girls may be able to go in and pick at 2c. and make more money than they would if they were picking in another patch at 3c. or 4c. Some of the pickers would not be able to earn ordinary soldier's pay at 2c. a box in some of the patches that I saw last year. We have tried at Waterford to set a standard price, but we find it cannot be done.

MR. HODGETTS: There ought to be a certain range of prices.

MR. HORNE: On my land it would be harder work for a picker to pick 150 boxes than it would be to pick 350 on Mr. Orr's land. Therefore, it would be pretty hard to set a price.

MR. PATISON: Is not there a record in Clarkson of two Indians who earned \$5 a day each?

MR. ORR, Clarkson: Five hundred and sixty-five quarts were picked by one Indian in a day on Mr. Lightfoot's patch. Up until last year we paid one cent a quart, but last year on account of the scarcity of labor we raised it to 1½c, and I paid 1½c. right through. I had as many as 60 pickers. Some of the pickers last year earned \$3.50 a day, and I had an Indian who picked as high as 350 quarts—the highest was 400 quarts. So that if we raised it higher than a cent and a half, I do not know where we would get off at, unless we got a very high price for our berries. In this case I had the tents and we furnished them with milk, and brought their produce back and forth for them, and they were very well satisfied. They

were making very good wages, and if you raise it much higher than a cent and a half, we will have to be sure of 15c. a quart for the berries.

THE CHAIRMAN: I think the average would be more than 4,000 quarts to the acre. They grow more than 4,000 quarts to the acre in Clarkson.

MR. PATISON: Mr. Johnson, who has been a strawberry grower for some years, claims that his average was from 8,000 to 12,000 quarts per acre. He was growing them for the canning factory.

MR. BUNTING: The Niagara Peninsula Association has been negotiating with the Labour Bureau, and the price for picking fruit is going up. The price for strawberries has been practically fixed as far as the Niagara Fruit Growers is concerned at 2c. per box. That has been agreed upon by the committee, and also by the committee representing the girls, so that if there is any objection on the part of the fruit growers at Burlington or this side of the lake it ought to be taken up. That is the minimum price, and where the picking is poor, the latter part of the season, the girls are to have the option of being paid 15c. an hour. That has been practically agreed upon between the Association and the girls.

A MEMBER: How much would the average girl make—an hour?

MR. BUNTING: That is more than I can tell you. It depends on the locality and the crop.

Q.—What is the average for a picker in a day in that district?

A.—I could not tell you off-hand what the average is. We have heard of one man picking 540 boxes in a day, but our people are not able to do that.

MR. FISHER: We have had three or four pickers who picked 400 boxes each on the same day.

THE CHAIRMAN: If the price set by the Niagara Peninsula Growers is going to conflict with the price paid by the people on this side of the lake, it had better be looked into before the matter is finally settled. If a picker can pick 300 boxes in a day you must have an exceptionally good patch.

MR. GAYMAN: I know Indians who have picked 400 boxes a day for a whole week in the Jordan District, but last year we had so much rain that our average was not very high. There are good patches and poor patches.

MR. BUNTING: These are the prices that have been practically agreed upon with one or two exceptions:

Strawberries, 2c. a box.

Raspberries, 3c. a box.

Blackberries, 2c. a box.

Cherries, 20c. per 11-quart basket, 15 pounds net.

Red currants, 20c. per 11-quart basket.

Black currants, 40c. per basket, 18 pounds net.

There is a little difference in connection with the black currants between the two committees. The young ladies thought they should have 25c. per basket for cherries where a ladder is used, and that they should have 45c. per basket for black currants. That difference has not been adjusted. The fruit growers have offered to guarantee \$1 per day rain or shine to these girls with 15c. per hour on days upon which they would work, which would allow them to make \$1.50 per day, if they worked 10 hours.

The statement was made that owing to wet weather, the girls were idle a good deal of the time, and in many cases they were not able to make their board, and the growers will be asked to guarantee them at least \$1 per day, whether they work

or not. It is up to the growers to see that they are kept busy, and if they work by the hour, they are to have 15c. an hour, and during the latter part of the season they are to have 20c. per hour.

THE CHAIRMAN: I would like to hear from the Clarkson people as to whether they think those prices will conflict with their prices.

MR. ORR: I think the pickers we had last year received $1\frac{1}{2}$ c. right straight through, and I would not be prepared to pay more, because it costs a good deal of money to keep a strawberry patch in good shape. Our patches have to be hoed three times before we pick, and any picker who goes to work at $1\frac{1}{2}$ c. will average at least \$2 a day without any trouble. We had some pickers who came out last year who practically would not pick any fruit at all, and if we had to pay girls like that \$1 a day whether they worked or not, we would not be making much money. I think the proper way is to fix the rate at a cent and a half per box.

THE EFFECT OF THE WAR ON THE FARM APPLE ORCHARDS.

DR. A. J. GRANT, MANAGER, THEDFORD FRUIT GROWERS.

In attempting to handle the subject which has been assigned to me, I am going to endeavor to bring out some bald truths concerning the average farm apple orchard which will sound badly and look still worse, if they ever get into print; but I believe that the time has arrived when the interests of the apple growing industry of this Province require that we look some stern facts in the face and endeavor to apply the remedy. Who will dispute the fact that the average farm apple orchard is slipping back? We may blame the scarcity of labor since the great war broke out, but if you will permit a digression from the text, I would like to go back to pre-war days for a few minutes.

The apple industry of Ontario originated in the orchards planted by the earliest settlers, chiefly with the view of supplying their own wants, but their ideas were generous and in many cases quite a respectable orchard was planted so that the home table might be well supplied with apples. I have in mind one orchard in Western Ontario which was planted some forty odd years ago, and it contains a few trees of nearly every variety that ever grew, and then some. The original planting was 500 trees, and the good farmer told me that his idea was to have plenty of apples for himself and perhaps a few for his neighbors. This is perhaps an extreme example of the generous spirit which pervaded many an early settler when he undertook to plant a few fruit trees for his own use. In this way many quite pretentious orchards were literally wished upon the individual who happened to own the farm fifteen or twenty years hence. The overplus of apples found a ready sale and some of the more enterprising farmers shipped a few barrels to Great Britain. The results were surprisingly good and a boom in orchard planting was the result. Practically every farm in the more settled parts of Ontario became possessed of an apple orchard, the size depending upon the enthusiasm of the owner. The export market grew to very large proportions and the itinerant apple buyer was much in evidence in all parts of the country, where good fruit was being grown successfully. These were the days when good apples were easy to produce and many orchards returned good crops pretty regularly with very little attention. Then the pests came in sufficient number to cause the grower who wanted real apples to put up a fight for it. No more easy money for him, and the pests have been asserting themselves more strongly ever since.

In our section of the country, during the season of 1912 there were quite a number of unsprayed orchards which yielded a large crop of fairly clean fruit, and I believe that this state of affairs was fairly general throughout Ontario; but since this time we have had such an avalanche of scab that only very persistent care and spraying has produced a good crop of fruit. The season of 1913 was a lean one, and scab was very prevalent; 1914 showed an abundant crop with plenty of scab and plenty of worry for the grower, owing to the outbreak of the war on the very eve of harvest. Naturally there was panic and disorganization in the apple trade, and the travelling apple buyer, who has often been made the subject of much abuse at our hands, never had a better opportunity of justifying his existence than he did during this trying season. Money was tight and the buyer failed to show his genial countenance in his accustomed haunts, with the result that thousands of barrels of apples were never picked. Associations and large growers were in a position to take care of their fruit as usual, and they were pretty generally well rewarded for their labor. In the years of 1915 and 1916, short crops and more scab was the order of the day, until the season of 1917 saw the climax of six solid years of trial and tribulation for the Ontario farmer when he got no apple crop at all. I am fully satisfied that the severe infection of scab on the leaves during 1916 largely accounted for the dearth of apples in the following season. The trees were so robbed of their vigor through lack of healthy leaf surface, that they could not mature the buds.

From the history of the past six seasons, is it any wonder that we see retrogression going on among our apple orchards? It required a heap of courage and no little faith on the part of any farmer, to stay with the game and take care of his trees, with the result that a great many orchards have been eliminated in the race. The elimination of many of these orchards has been a blessing in disguise, as they are surely travelling toward an untimely death, and with their demise will disappear at least some of the low grade fruit that gets on the market in favorable seasons. But we may well feel concerned lest the process of elimination proceed too far, and the apple industry of this Province receive a rude jolt which will not easily be recovered from. Let us remember that you cannot grow an apple orchard in a night; it requires twelve or fifteen years to get our standard varieties producing commercially. What of the tremendous increase in the importation of apples during the past few seasons? Does anyone imagine that this state of affairs is going to make it any easier for the Ontario apple grower? We are losing our best markets to foreign trade, because we are failing to produce sufficient high class fruit to supply the demand. We have too long soothed ourselves with such pap as "the superior flavor of Ontario apples." We can produce an apple of superior flavor to that produced any other place in the world, but the realization of this great blessing is utterly useless unless we get busy and grow them in sufficient number to supply the trade. The people in our own great cities and towns want an abundance of first-class apples and they have got the money to pay for them. If we Ontario growers will not produce them, they will buy from the Western United States and British Columbia. We may be able to excel these districts in flavor, but they have got us beaten to death when it comes down to getting the business.

We have a number of large growers whose orchards require no paternal care on our part. These men are successful in a line of their own choice, and they are keeping their orchards in first class condition and being well rewarded financially; but the fact remains that by far the largest portion of our commercial apple crop

is produced in the farm orchard, owned and operated by a farmer with many and varied interests in agriculture. It is the well situated orchards in this class that are crying out for attention, and I am fully satisfied that the industry is in for a severe set-back if some concerted effort is not made to reclaim these orchards.

When we consider the millions of dollars invested in apple orchards throughout this Province it seems to me worse than sinful waste to allow them to deteriorate and fall by the wayside, simply from lack of care. The idea seems to be prevalent in some quarters that the orchard may be allowed to stand in a state of neglect until labor conditions become normal, and then whipped back into shape at the will of the owner. The whipping back process is no easy matter, and it takes both money and energy in abundance. The man who is neglecting his orchard right now because the task looks too great will have little chance of stirring up sufficient energy to tackle it a few years hence because the work is multiplying by leaps and bounds. I have done considerable work in rejuvenating neglected orchards, and let me tell you that it is only a mighty good one that will pay for the work of putting it back into shape. Then there is the other side of the story. Orchard pests never were easy to fight, even when we kept hammering away at them, but imagine what is going to happen during this period of laxity on our part. Scab has become so prevalent during the past few years that we frequently hear farmers wonder if we are ever going to be able to grow clean apples any more. San José scale is finding new haunts almost daily, and is perhaps most to be dreaded, because it soon kills the trees attacked. If this disease showed any special preference for poor orchards, or even poor varieties, we might feel easier; but like affliction falling upon the just and the unjust, so this pest attacks both the good and the bad orchards, and the owner does not require to be in a very deep state of slumber to have the disease get the start of him.

As an employer of labor, I fully realize the many difficulties which have beset our path since the war commenced, and these difficulties will become greater for some time to come. We are engaged in the mightiest struggle that the world has ever known, and, with our backs to the wall, we have resolved that this is to be a fight to a finish. We must stay with Germany until that arrogant spirit of military autocracy is crushed, hopelessly beyond repair; because common decency and everything in this life worth living for are the issues at stake. To accomplish this task is going to require prodigious supplies of men, money and food, and to provide these means national team-play. There is work for everybody and nobody is doing his duty until he is running full capacity. Our duty is plainly a matter of production to the limit with the means at hand, because more and more of our able-bodied men will be required of us to fill the gaps at the front. Medical science tells us that good bodily vigor is not possible without a fruit ration, and the apple is the king of all fruits. Are we doing our duty to the cause when we allow our orchards to get into such a condition that a decent crop of apples is well nigh impossible? This is not far-fetched argument; it is based upon common evidence to be had in any section of Ontario. The spectacle of a good crop of clean apples on a few orchards while the general average have practically nothing at all has been only too common during the past three seasons, and the cause is not hard to find; in almost every instance it was due to lack of care on the part of the owner.

We farmers have often been accused of a great many shortcomings, but I do not believe that we can be rightly accused of gross carelessness in connection with any paying branch of the farm. If some of us have been neglecting our orchards there must be some reason for it, and it is quite apparent that there are some rea-

sons that might be threshed out to advantage. I think we will all take common ground that the production of good apples in Ontario, from this out, spells work and care in capital letters; but there is a silver lining to the cloud in the fact that the demand for really good apples was never better; and I will back a good apple orchard against any other branch on the farm, when the returns are figured up at the end of the season. It is not many years since there was a discussion at one of our conventions on the possibility of over-production. However, I do not think we need waste time over this subject now, as we are seriously concerned about under-production and will be for many years to come. If you can grow good apples and have facilities for marketing them, you can make a lot of money; but nobody ever made any money growing poor apples, or growing a low grade of anything else for that matter. It requires considerable knowledge and intelligence to carry out a good crop rotation on any farm, and get returns for your labor, and along the same line of reasoning, it requires as much, if not more, knowledge and intelligence to produce an apple crop with any degree of certainty. This can readily be acquired by the man who is interested, and the sources of information are as free as water. Theory without practice would be hopeless, but unless you have studied some well grounded theory you must fail from a practical standpoint; life is too short to grope in the dark and expect to make a success of anything. I often think that we would appreciate the services of our Agricultural College and Fruit Branch staffs to a fuller extent if we had to pay directly for them. Did you ever size up the crowd at a pruning or spraying demonstration? You will invariably find the fellow absent who is growing the poor crop of apples, and the men in the front row, thirsting for information, are usually the successful growers. They gathered much of their knowledge of the game in this way, and they are always trying to learn something more. A general knowledge of the art of spraying and orchard care would undoubtedly mean less neglect and more good apples.

Many of our farm orchards are too small for profitable handling, and it would seem to me that those representing anything less than 150 to 200 trees should be leased or operated on shares by some man qualified for the work. Several such orchards in the same locality, under one management, would afford power spray machinery and other equipment to run the business successfully. This scheme has worked out well in many parts of Ontario, and a more reasonable attitude on the part of the owners, in the matter of rent, should make a wide application of this method very popular. Good money can be made by renting a few small orchards at fifty to seventy-five cents per annum per tree, for a term of five or six years. The farmer with a neglected orchard on his hands will realize a great deal more money in this way, and his property will be getting better instead of worse. Many of our co-operative associations are made up of these small orchards which might be readily placed in the hands of fewer growers to the profit of all concerned and to the lasting benefit of the apple industry at large. The number of fruit growers' associations in Ontario is decreasing every year, and the small orchard is the big difficulty. I would like to see the Co-operation and Markets Branch of our Provincial Department of Agriculture undertake to reorganize some of our Associations along these lines, and success would surely attend their efforts. There are at least a few men in every section where an Association once existed—moving spirits we may call them—who realize that there is good money to be made in growing apples. Why not form associations containing six or seven live members representing sufficient trees to make the business a success? A large membership does not necessarily mean a successful organization; in fact, the reverse is usually the

case. The business is practically a partnership deal, and the co-operative spirit is a brand of religion which does not grow on every bush. It should not be difficult for them to lease their neighbors' orchards, each in sufficient number to make apples their main stake. Labor problems would then be easier, as there would be work for a small gang of men instead of employing one or two men at certain seasons of the year. Our Association has made a practice of sending out a pruning gang every year, and we have always been able to get men to work in a gang when our individual members might have difficulty in employing one man to help prune. Evidently the social element has something to do with this preference on the part of men. Our method has been to pay the wages every week from Association funds, and charge the amount against the growers' account to be deducted from subsequent fruit sales. Members will have work done under these conditions when they might hesitate to face a respectable pay roll on Saturday night at a time of the year when apples are far from their thoughts.

Every phase of life and industry has been affected by war activities, and it has been necessary to make adjustments in every line of work in order to compensate for the shortage of labor and to meet the new conditions imposed upon us. Apple orcharding is no exception to the rule, and we should endeavor, at all hazards, to keep up the essential work and eliminate those things which are not absolutely vital to our success.

Fertility must be kept up and manure can be readily applied during the winter months, direct from the stables, if you are fortunate to have sufficient on the place, or it may be teamed from a distance much more economically on sleighs than on wheels. Most of our orchards require more liberal applications of manure than they have been getting, and I believe that the crying weakness of most farm apple orchards is lack of fertility. Heavy crops of apples, whether clean or scabby, take a lot out of the soil, and the trees are bound to show poverty in foliage with consequent lack of fruit if manure is not applied regularly, in sufficient quantity. If we were obliged to grow one crop year after year on the same piece of land we would never be able to satisfy ourselves with the quantity of manure applied, no matter how great our source of supply happened to be, and we all know that anything short of a Herculean effort to keep up fertility would mean a steadily diminishing crop. The poor old apple orchard is struggling to produce the same crop year in and year out, and the average attempts at putting back the fertility are far short of an effort that would do credit to Hercules. It pays well to ship in manure from the larger centres and draw it to the orchards in the winter time. Chemical fertilizers are useful, but in my opinion they cannot take the place of barnyard manure; I like to use both, but the price of the chemicals is an important consideration at the present time. The only economy that should be used in manuring is to place the material only over the feeding roots of the trees, keeping about five feet away from the trunk in all directions.

Pruning is necessary and can readily be made a winter job. During war time, anyway, you will not be nearly so cold as our gallant boys in the trenches at this present moment, and there will be no German bullets to dodge. All my apple orchard pruning has been done in the winter for some years merely as a matter of economy, and I have never yet seen any indication of damage to the trees. In any event I would rather take a chance on a little damage just now than chance getting the work done when the spring rush arrives. If the day is too cold to use a saw the long-handled pruner is a good implement, and its use entails sufficient bodily

exercise to keep warm. There are always plenty of small branches in the bearing heads that this tool will handle.

If your orchard soil is a nice sandy loam or light clay loam you can save some labor by using the sod mulch system for a few years, instead of cultivating, but I am always afraid to mention sod mulch without the use of the "soft pedal," as it is hopelessly out of order on many of our good orchard soils. Then there is always the temptation, on the part of the novice, to draw off a few loads of luscious hay instead of leaving it on the ground where it belongs. Some of the finest and quite the best colored apples that I ever grew were produced by an orchard under this system, and I would not hesitate to use it on a nice friable soil at any time; but cultivation is vitally necessary on the harder soils if you are going to get real crops. Late fall ploughing is good practice in most parts of Ontario, if the orchard has been regularly cultivated, and makes work much easier in the spring. The method of leaving the trees standing in a sod strip ten or twelve feet wide will save a lot of time, and in so far as I have been able to judge, neither the trees or the crop are any the worse than under complete cultivation. I believe that Mr. Gibson, of Newcastle, one of our largest apple growers, has used this system of cultivation for a number of years, and is still using it, so this should be good evidence that the method is profitable. In my own limited experience I can vouch for the fact that it saves about half the labor. Really the slow part of the work is the last five or six feet next to the trees, whether ploughing or cultivating. This would seem like a real war time plan of cultivation and should be in general use as it suits all soils.

There are two sprayings which we should consider indispensable: the one just before the blossom opens and the one applied when the petals have about all fallen. I do not see how we can avoid two good drenchings at these periods and have any certainty of a good crop, but the dormant spray might be omitted if you are sure that you are free from San José Scale. Of course we are speaking now of orchards that have been cared for, and therefor free from Oyster Shell Bark Louse. If your orchard is in a scale infected district, or if you do not feel like taking any chances, the dormant spray might be applied in the late fall, or at any time that the mixture could be handled without freezing. This covers what we regularly call our three standard sprays, and subsequent applications should be governed entirely by local conditions. I almost invariably apply at least one spray after the fruit has formed, and sometimes two, but I have seen many seasons when these sprays would be quite unnecessary and therefore unprofitable in certain districts when they might mean everything in a section not many miles away. This is one place where judgment on the part of the grower is of great value, as nobody can advise him unless he is right on the job so as to understand the local weather conditions. We are all watching the process of dusting with a great deal of interest, and the procedure looks very rational indeed. It is simply an old practice revived, and the experience of years ago demonstrated that it would control fungus diseases, but the manner of application was chiefly by hand, over very small areas. Personally, I have a great deal of confidence that it will finally supersede the present cumbersome method, but I fear that many improvements are necessary both in the machinery and the material before we can make the change. A good grower pretty nearly knows what his "batting average" is going to be when he starts his men out with the spray pump; they understand the work thoroughly. Records up to date have not shown dusting to give any cleaner fruit, and the real good records

have mostly been produced experimentally by men of more than usual ability along these lines; but we are all ready to admit that the process entails less work and the cost is not much greater. You cannot junk your spray outfit anyway until something is put in dust form to control San José Scale, and the new method will probably be handed to us on a more practical basis by that time.

If we are blessed with a good crop of apples this season we will have to depend very largely upon female help. The young women and girls of this country have responded nobly to the call for help from all quarters. Their assistance during last year's fruit harvest was invaluable, and we should be ready to pay par value for their labor every time. We must not forget that while true patriotism is calling these noble women to manual labor, we are being helped over stony places, and we should do our utmost to make life pleasant and agreeable for them. Pay them the best wages that conditions will afford; but we have not done enough then unless we reciprocate in the spirit which sends these willing hands to help us. A great deal of the picking will have to be done by women; and women sorters, after some experience and careful teaching, will distance men altogether.

The pessimist will soon be wailing his old familiar tune about market difficulties for 1918. You are all familiar with that time-worn bit of advice that we like to give to the boy who is standing on the threshold of life: "There is always room at the top." This applies to apples as well as everything else. First class apples, properly packed, will always sell well; the poor ones have a right to go begging for a market.

The effect of the war on the farm apple orchards has been serious, but there is yet time to rejuvenate a great many of them. It is our duty as fruit growers to lead in the attempt.

THE CHAIRMAN: One important point Dr. Grant brought out is in regard to not neglecting the orchards. I think it would be foolish to let the orchards go to ruin. I was attending a convention in Rochester two weeks ago, and the gentleman from Mr. Hoover's office made an address. He said he was asked the question whether it was wise to change arrangements and grow grain, or raise more cattle or pigs, and neglect the fruit growing, and his advice to them was not to change. He said one man wrote him saying that he intended to grow ten acres of watermelons, and he wanted to know if it would be better to change from watermelons and grow wheat, and Mr. Hoover's assistant told him to grow watermelons, because he said that would be useful to somebody, and this man understood the growing of watermelons and may not make as great a success with growing wheat. He emphasized the great need of food, and he thought it would be better for everybody to stick to their own line, because in that way they would help more than they would if they changed to something they did not thoroughly understand.

MR. PATISON: My opinion is that the average farmer should not be allowed to have an orchard at all. It is in the small orchards that the San José Scale flourishes, and if it would only spread over them all and clean them out, it would be a very great help to the fruit business. The man who is running a general stock farm will not take an interest in an orchard, and that is the reason why so many orchards are a nuisance.

THE LABOR SITUATION FOR FRUIT FARMERS.

MISS HARVEY, TRADES AND LABOUR BRANCH, TORONTO.

Dr. Riddell gave you a good deal of information last night about the labor situation with regard to the farm, and what we hope to do through our Department, and I will not waste any time outside of the question of sending out girls and women to work on fruit and vegetable farms. Last year, as you know, we sent out about 2,500 workers, some for as long as five months, some for only two or three months, and some business girls could only give a fortnight. When these girls were sent out, the information we gave them about wages was that they would be paid the best rates, and they would be able to get \$1.50 a day if they were good pickers, and if they could not make \$1 a day in fair weather, they would be asked to go home.

We were of the opinion at that time that a good picker could make at least \$1.50 a day, but of course they did not do it, and we soon had to relax the rules that they would have to go home, because some of them could not make an average of \$6 a week. In fact fifty per cent of the girls did not make \$6 a week; fifty-four per cent. of them made between \$5 and \$7, and one-sixth of the girls made under \$5 a week. The only girls who made as high as we had led them to think they would earn made about \$9 a week, and they were in the Queenston District, and they were paid at a higher rate than the girls in the camps.

This year there is going to be a still greater demand for women labor, and we are up against a problem of whether we can get the girls to go again, who went last year on erroneous information. We did not give them this information intentionally, but we had a wrong impression as to the amount of money that could be earned. Unless the farmer will take the trouble to put in vegetables so that the girls can have steady work during the time they are out, it will be difficult to get the girls to go. Two hundred of the pickers who live in Toronto, met in the fall and decided that unless they could get about \$9 a week next year that they could not afford to go out again. They have to pay \$4 a week board, and certainly the board will not be less than that this year. If they secure their board at the farmer's house, the farmer could board them a little cheaper, but we have to pay people to go out and cook for the girls and to look after the sanitary conditions, and I am convinced that we cannot do it for less than \$4. We may have to charge a little more than that.

In a big camp of girls we could not allow them to do their laundry in the house, and another thing is they have not the time, and therefore they have to pay for their laundry. They also have to pay their railway fare and for the clothes that they wear out, because they certainly wear out more clothes than they would at home.

We do not want to compare the girls with men, but comparing the wages they get with the wages that the boys get they were not as well paid, and a girl can do just as much work as a boy of fourteen or fifteen; and boys of fourteen and fifteen got about \$14, board and laundry, per month, and boys of sixteen and seventeen about \$20 per month, and boys of eighteen and nineteen got about \$25 or \$30 per month, board and laundry.

The girls are asking \$9 a week, and they pay \$4.50 for board and laundry, which leaves them about \$17 or \$18 a month, and that is not a high wage. Of course men get more than that, and they earn more than that.

In the discussion I had with the girls in Toronto, some of them got up and said, "The farmers cannot afford to pay that." There was always somebody in the meeting who would say, "No, that is not fair. The fruit growers cannot afford to pay that." We want a fair rate but we do not want what is not fair, and what the girls ask is to be able to earn \$9 a week without their board, and they will pay their board out of that. They were willing that they should be paid a straight \$9 a week, and they suggested if their board was paid for them and they were hired at 15c. an hour, taking into consideration the time they would lose through a slack season and through wet weather, they would still earn about \$9, or if the men did not want to pay their board, they might pay them 25c. an hour.

MR. PATISON: Do you know what a man gets in the Niagara District? He does not get more than \$3 a day and his board is not paid, and you are asking 25c. for girls. The ordinary woman working on the farm down there packs twice as much as one of these girls, and she only gets 15c. an hour.

MISS HARVEY: Yes, I know that is true, but these women have their board and laundry from their husbands. They do not have to pay their board, and they are just doing this for a little extra money. I do not think the women should work for less than \$9 a week, because if they work for less than that, they will not be getting a living wage, and we call that sweated labor. The girls who were out last year have said that they cannot go out again unless the terms are such that they can clear their expenses and earn a little. I am getting letters from a great many people who did not go out last year, and I brought over a typical one to show you the attitude of the girls. This is from a teacher who was willing to go out for two or three months. I had written her telling her that the Niagara Fruit Growers' Association would guarantee the girls \$1 a day rain or shine, and that they were to be paid for piece work at a slightly better rate than last year, and this is her reply:

"Your letter of January 30th received. The last paragraph is not just quite clear to me. You say it has been suggested that the fruit growers would guarantee \$1 per day—with or without board? If board is to be paid out of that amount and clothes bought and railroad fares and other expenses, as I see it, it will not meet these expenses. Personally I want to help in this way, but if the Government and the farmers are in such need of help, surely they can afford to pay the girls enough to meet expenses and a little for working all day in the hot sun.

"Am I mistaken in the meaning I take out of the last paragraph? If this is correct, I am afraid I shall either have to make private arrangements or take temporary work in an office, as I cannot afford to give my summer's work for nothing. I should be glad to hear from you further."

That is the sort of letter I am getting from all over the country, and I cannot make people go out and help unless they are properly paid.

The negotiations between the pickers and the executive of the Niagara Peninsula Fruit Growers' Association have reached a certain stage, and I will give you the results. We have not come to a satisfactory agreement. The girls ask for \$9 a week on a flat rate, or by the hour sufficient so that it will amount to \$9 a week. The men offer in return to pay \$5 a week, rain or shine, and put the girls on piece work. One-third of the girls only got \$5 a week last year, and they said, "This is just about the same as last year, and we are not being offered anything better," and they discussed the rates offered by the men, and with one or two exceptions they felt they were very reasonable. Then the men offered to pay \$1 a day rain or shine. They thought that when the girls gave up their holidays and had to live in a strange district, they should get at least \$1 a day all the time they were there, and in return for that, the girls must do any work asked of them. She may be putting handles on

baskets or helping with the housecleaning or helping in the greenhouse—all sorts of things like that she must do. But whether she works or not she gets \$1.

Then piece rates were suggested, and it was said that if on any patch or any orchard the girls could not earn 15c. an hour, they were to be paid at the rate of 15c. an hour. Last year we had some girls who were working on gooseberries that only made 40c. in a ten-hour day. They should never have continued to do the work, and they should have refused to work at that rate. Of course that was simply a case of an isolated grower imposing on the girls, and the arrangement this year is that if the whole group of girls are not earning 15c. an hour, they are to be put on at that rate. They are to be paid 2c. a box for strawberries and 3c. for raspberries, black currants 40c. for an 18-pound basket, and cherries 20c. for a 15-pound basket, and gooseberries 2c. a box, except for the English variety. Red currants 20c. for an 11-quart basket, and for picking peaches, pears, grapes and plums 15c. an hour.

Last year some of the girls found that as the fruit picking does not begin until after eight in the morning, they could not get in their ten hours a day, and, therefore, could not make \$9 a week, and they are willing to go out at 20c. an hour or at \$9 a week straight, but they are not willing to work for 15c. an hour unless they are picking peaches, plums and pears.

There is very little doubt that we can get 5,000 or 6,000 girls to go out, if you will give a reasonable living wage. The Y.W.C.A. have offered to take charge of the camps again this year, the same as they did last year. I cannot tell you what it means to us to have that offer from the Y.W.C.A. If you could see the number of anxious letters we get from parents asking who is going to look after their girls and asking who the woman is who will be in charge of the camp, and when we write back and say the Y.W.C.A. is going to look after the camp then there is no question whatever, because that is an Institute that is recognized throughout the country as efficient and as standing for the right standard of housing conditions.

Last year they did this work at a loss of \$3,500, but this year we hope that camps can be arranged and that the girls will have cottages that can be used for kitchen and dining room—and we can probably get an unlimited supply of tents—and we will not have any rental charges. The girls in the district can probably get hold of a house that will do them for kitchen and dining-room at a reasonable rate. The Y.W.C.A. are willing to give their services and provide the people to do the cooking and looking after the girls, and they will do the buying of supplies, etc.

If you want us to take this work in hand you will have to let me know at once, because it will be necessary to go ahead with it immediately. It is not as if we were only going to open up one camp, but if we are to open up fifty camps it will be impossible for us to handle it unless we hear from you within the next few weeks exactly where the camps are going to be. I know that the men prefer to wait until about May when the trees are showing some indication of what the crop is going to be, and we won't, of course, make binding arrangements until that time. I mean a grower may say, "I want six girls throughout the season," and then when it comes near the time he might say, "I am going to have a particularly good crop, and I want more girls." Once a camp is arranged it is an easy matter to send in more girls, but if no camp is arranged for at all, we cannot do it on short notice. We are not permitted to send out girls unless we can assure the parents that they will be well looked after, and, therefore, we want you to make a definite statement as to whether you want the girls or not.

THE CHAIRMAN: Miss Harvey has given you a very clear and concise account

of the situation as it is at the present time. It is up to you to say what you want done.

MR. FOSTER: We are greatly indebted to Miss Harvey for the very clear manner in which she has put this question before us. There are always two sides to every question, and we want all the information possible. Speaking for the Burlington district, I would like to say that last year we did not take advantage of the proposition that was made to us early in the season. Miss Harvey called on me one morning and we did not entertain the question at all. We did not think we had a season in which we could use that sort of help. Part of the time we would need more help than they could possibly furnish us, and part of the time it would be slack.

As far as the scale of wages is concerned I do not think it is very satisfactory. It seems to me that if I had a man or woman that I was paying 15c. an hour for doing a certain work, and if I got other help in to do the same sort of work I could not pay them more money. That is the way it strikes me. You would have to pay the same rate per hour in both cases.

MR. BUNTING: As a member of the committee that has been dealing with Miss Harvey and the young ladies of the National Service Section, I want to emphasize the fact that the committee felt under very deep obligations to Miss Harvey for the very great efforts she made to harmonize what seemed to be the conflicting opinions in connection with the negotiations as they proceeded. The very fact, as Miss Harvey has just stated, that these negotiations have come to a position where they are practically settled, with the exception of one item, is largely due to the efforts Miss Harvey has put forth in bringing together the divergent views of the different committees. The desire of the fruit growers was to avoid disturbing existing arrangements with their permanent help. That was a serious point with the fruit growers, and they felt that they could not concede that point to the young ladies because it would interfere with their existing help.

But we want to have the girls protected in every way possible, and we were willing to fix a minimum rate, and where the girls were efficient and capable, we would give them advanced rates.

I have every hope that the proposition as outlined between the two committees will be accepted in good faith. Some of the young ladies have intimated that in some isolated cases last year they felt they did not receive fair treatment where they were employed, and the committee called the attention of the young ladies to the fact that the whole fruit growing fraternity should not be penalized because certain individuals did not do the proper thing. It has been arranged that there shall be a committee of two fruit growers and two of the young ladies who will adjust matters of that kind and penalize any individual fruit grower who does not act in a fair and liberal way towards these young ladies. (Applause.)

THE CHAIRMAN: I think as a whole the fruit growers appreciate the work which the girls did last year, and the sacrifices they made in coming out and attempting to do work with which they were not familiar. They were willing to put up with great inconvenience for the sake of helping out the situation, and I hope that arrangements will be concluded this year that will be perfectly satisfactory to the young ladies.

MR. FISHER: Permit me to offer a suggestion which I think is entirely reasonable and which might be accepted by Miss Harvey and by the girls. I think it would be only fair that the employers of these girls should pay the transportation, say from Toronto to the point where the girls go, and return. That would put everybody on a fair basis. For instance if a girl should ask to go to Clarkson,

which is a very short distance and an inconsiderable expense, she would be on the same footing as the girls who went to Queenston who would be at greater expense for railway fare.

MISS HARVEY: There is one point that I would like to speak of for the benefit of those who did not have the girls last year. A fruit grower can say he wants five girls through the whole season, and that during the raspberry crop he may need fifteen girls. If the camp is established it will be easy for us to put in the extra girls. There are girls who are more than berry pickers. Some of them who went out last year understood how to run an automobile, and they have often taken the motor cars and gone to the market, and some of them could take out a spraying machine, two of them together without any man's help, and spray the trees, and some of them did horse cultivation for weeks at a time. We had some girls who, for a month, did nothing else but cultivate, and they also did pruning and all kinds of work of that kind, tying up grapes and cutting out raspberry canes, and I do not think the men need feel that the girls are going to be on their hands when there is no picking to be done. Over sixty-five per cent. of the girls were over twenty years of age, fully grown strong girls, and they can do as much work as a boy of eighteen or nineteen.

MR. FLEMING: With reference to paying the transportation, I do not think it would be quite fair. We might arrange to pay the return fare from Toronto, otherwise it would be a difficult proposition, and some girls might only work for two or three days on one farm, and then change over to some other place, and that would create a great deal of difficulty.

DR. GRANT: We are all ready to admit that there is a very serious labor shortage, and if we have a large fruit crop this year, conditions will be worse than they were last year, and it seems to me what we should do is to get busy with the girls and be reasonable in every way, and do not let them get away from us, because we will need them very badly, and we will have to have them.

MR. DAWSON: I happen to be one who was fortunate enough to get hold of some of these girls. I had thirty-five acres of corn, eight acres of mangels, three acres of potatoes, and I put the girls in the field at 20c. an hour, and I had men working at the same work at 30c. an hour, and the girls did more work at 20c. an hour than the men did at 30c.

Any person who has seen the work these girls did last summer will quite agree with me that they will do pretty good work. My potatoes were so well done that I had to keep telling the girls not to be so particular with the work. And these were high school girls of sixteen and seventeen. I had a Ford car with a truck attached to it, and I had the girls ploughing for me, and they could do just as good work as a man. All they now want is a little more money to encourage them. I do not think 15c. an hour is sufficient, and I think we should pay them a certain sum per week. You cannot get men to work for you by the hour. My policy in hiring men is to pay them a minimum wage, and then I pay them according to the work they do afterwards, and I suggest the same policy should be adopted with the girls.

A MEMBER: Has there been any discussion on the part of the young ladies with regard to working nine hours a day instead of ten?

MISS HARVEY: Yes, and the average city girl feels that nine hours a day is sufficient. It would be to the farmers' benefit if they did not ask them to work longer than nine hours because they really cannot keep it up for ten hours, especially if they are hoeing.

MR. GRIERSON: I do not do much hoeing myself, but I do not think I would

ask any girl to work more than eight hours a day at that job because hoeing is hard work.

MR. FISHER, Queenston: I did not have any of the National Service girls last year. I had some of my old hands that have been with me for four or five years and some new hands. We did not feel that we could strike a wage that could fit in with everybody. If we fixed a minimum wage of 20c. an hour it will not hinder me or anyone else from going and saying to the girls, "We will give you 20 or 25 cents an hour." I like to pay the girl who does the work the money. If I have a girl at 20c. an hour and she does not earn it, and if I have a girl who is worth 25c. an hour, I want to pay it to her. I have heard a woman say: "I packed ten baskets of apples, and the girl next to me packed only five, and she is getting just as much as I am," and the girl that is packing ten baskets is worth a great deal more because she is speeding up the others.

MR. BUNTING: With reference to the eight, nine or ten hours a day, that was a point that came up for discussion, and the fruit growers realize that as Dr. Grant has stated and Mr. Grierson has stated that in many cases, to ask the girls to work ten hours was more than their strength would justify. Most of us know that ten hours a day obtains on the farm, and consequently the committee were reluctant to adopt eight or nine hours a day, in as far as the National Service girls were concerned, because that might have an affect on the other workers.

THE CHAIRMAN: We all realize that it is impossible for fruit growers to stop work at five o'clock in the afternoon, and if a girl does not feel she is strong enough to keep going until six or seven o'clock, she can quit at five, but if they all quit at five o'clock it would simply demoralize the business. We cannot get to work early in the morning on account of the wet, and we have only a certain time in which the fruit can be shipped, and we must avail ourselves of every possible minute during the time that we can work.

MR. CARPENTER: We have offered 15c. an hour as a minimum wage, and when the peach and plum picking begins we will pay 20c. an hour, and if a man is anxious to get his peaches off and feels like paying 20c. an hour he is at perfect liberty to pay that much, but I do not think we should undertake to pay a minimum rate of 20c. an hour.

MISS HARVEY: I do not think Mr. Carpenter realizes the difficulty I have. If any girl is not earning her 20c. an hour and is only worth 15c. that can be adjusted by the secretary, but if you do not make better arrangements than last year I will not be able to get the girls. If you want me to get them I will have to organize a big campaign at once, and I think I will be able to get at least 5,000 girls.

MR. LOWREY: We employed the National Service girls in Niagara district last year. Formerly we used foreign help. I had no idea these girls would come up to the mark, and I was agreeably surprised. They did the work better and more intelligently than we have ever had it done before. We did not pay them less than 20c. an hour, and I paid some 25c. an hour, and in some cases I paid 30c. an hour, and they were willing to do any kind of work that we put them at. I employed them from the 10th of September until the latter end of October. They picked peaches, pears, plums, apples, potatoes and did all kinds of work on a mixed fruit and vegetable farm.

THE CHAIRMAN: The situation in our district was different to what it was in other districts. We had a very heavy peach crop, and I paid as high as 40c. an hour to pickers to pick peaches.

A MEMBER: I have a patch of raspberries and lots of girls earned twice as much as others picking the fruit. Some are not worth 10c. an hour, and others are

worth 25 and 30. If you start them with an inducement of 20c. an hour you are going to get a lot of girls out with the mistaken idea that they are going to get that wage whether they work or not.

MR. FISHER: I move that when the tree fruits come in, the pears, plums, peaches and apples, that the minimum wage be \$9 a week.

MR. FOSTER: I second that motion.

MR. ONSLOW: Some of the girls want to be off Saturday afternoons.

MISS HARVEY: When the fruit season is on and the fruit has to be picked the girls are certainly willing to work on Saturday afternoons; but if it is a matter of doing ordinary work, raking, hoeing or anything like that kind, then the girls do not think they should be asked to work on Saturday afternoons. We expect the men to use common sense in a matter of this kind. It does not do to tire the girls out, but when there is a rush of picking to be done they are willing to work on Saturday for their \$9 a week.

A MEMBER: We are willing to let the girls take a half day off any time during the week, but Saturday is a very important day with us, and we would rather have them work Saturday afternoons. I have been discussing the question of \$9 a week with Mr. Bunting, and it is possible that we may make arrangements to stand on that, and when the peach picking starts in September we would give them a maximum wage of \$9 a week, and \$6 to apply up to the first of September.

MISS HARVEY: Whatever time the tree fruits begin.

MR. FISHER: Apples, pears, plums and peaches.

THE CHAIRMAN: It has been moved by MR. FISHER, Seconded by MR. FOSTER, that a minimum wage of \$6 shall apply until the tree fruits, such as peaches, plums, etc., come in, and from that time on a minimum wage shall be \$9 a week. I think myself that would be a good arrangement and will probably be accepted by both parties.

MISS HARVEY: Yes, I think it would.

MR. FISHER: I would be willing to amend the motion so that the Committee of the Association and the girls should fix the date when the \$9 rate should begin.

THE CHAIRMAN: Then the motion will be amended that the \$9 will be paid from the 1st of September or from a date to be fixed between Miss Harvey and the representatives of the fruit growers.

The motion carried.

MISS HARVEY: I think there is no question but that I can get the girls on these terms. These are practically the original terms the girls asked for.

MR. JEMMETT: Will some one be in charge of the labor in the different districts. It would be a great blessing if there were local secretaries to whom troubles could be referred, because some girls are worth a great deal more than others. Some girls I would not give for a carload of others.

MISS HARVEY: District secretaries will be appointed and paid by the Government, and their whole work will be adjusting all sorts of problems that will be raised in the districts. For instance there will be one secretary for Norfolk County, and that secretary will be within reach by telephone of any camp, and there will be a girl in each camp who must report to that district secretary, and it will be the duty of that secretary to see that the girls get the right treatment from the farmers, and the farmers will also be permitted to write to the secretary and report any troubles that they may have. If there are girls who do not work well, she will have absolute power to send them home on one day's notice, or if the farmer prefers to keep her on at a lower rate of wages she may stay on, but we want to insure justice on both sides.

PROPOSED CHANGES IN THE STANDARD ELEVEN-QUART BASKET AND APPLE BOX.

P. J. CAREY, DOMINION FRUIT DIVISION, TORONTO.

At every convention this matter of standard packages is more or less discussed, but there are two reasons why it should be brought up at this time, the main reason being that it is generally conceded by the whole fruit industry that there is a crying need for a change, and that the package situation is far from being satisfactory. The second reason is that there is the possibility of legislation being put through at this coming session with regard to matters of interest to the fruit industry, and along the line of standardizing packages.

I wish now to take up three packages, the basket, the box and the apple barrel. The merits and demerits of the basket have been threshed out scores of times, and we are all pretty nearly agreed on which basket is the best. We have in the present eleven-quart basket a package that is too shallow to hold three tiers of large peaches, and that has been the trouble with it all along, and that is why we have had to have what is known as the deep eleven-quart, and also the nine-quart basket, which holds two tiers, and the deep eleven holds three tiers of large sized peaches.

The deep eleven has some virtues, and I know two or three men who use it, Mr. Robertson and Mr. Fleming, and I am ready to admit that it has some good qualities, but it is not satisfactory for loading on cars, and it does not bundle.

The nine-quart is not satisfactory because it does not hold as much as the eleven-quart, and is often sold at the same price.

At a meeting held early last year at Grimsby it was decided almost unanimously to eliminate all baskets except the six-quart and the eleven-quart. A committee was appointed with Mr. Hastings as Chairman, to take the whole matter up and arrive at some conclusion as to a uniform eleven-quart basket. The standard of the present eleven-quart is five and three-quarter inches deep, and the deep eleven-quart basket is six and one-quarter inches deep, and somebody made the suggestion that we should compromise and make the eleven-quart basket six inches deep. At last we arrived at a conclusion and blocked out a basket six inches deep, and had a block made and a number of baskets manufactured from that block. I have before me one of the baskets. It is six inches deep and holds a trifle less than eleven quarts, and I think that is much better than holding a little over. It does not matter how much it holds as long as that basket all over the Province is the same size.

I want to point out some of the good points of this basket. You will notice that the corners are square, and by the block being made the same shape at the top as the bottom the basket can be packed close together when not filled, and it also makes the basket stronger. You can see that it can be squeezed almost to a point, and yet will come out all right. I want it clearly understood that I have no desire to railroad any legislation through, because it is the business of the fruit growers to ask for the package they want, and I am merely a go-between. We made about seventy of these baskets and have tried them out, and we find that with proper packing you can put three tiers of large peaches in these baskets.

Q.—What about apples? How will they go in?

A.—I do not know that we tried apples, but of course apples will always come right. In packing peaches we pack them diagonally so that the cheek of one peach does not rest on the cheek of another, and I think that is the proper way to pack peaches. Then the small peaches we put them in without tiering, as it does not

matter so much how they are packed, and you need not be afraid that the inspector will find fault with the way the smaller peaches are packed.

We propose to make it a matter of law as to the number of nails that are put in the basket, the thickness of the materials that are used and the quality of the veneer, and the thickness of the bottom. The fruit growers have endorsed the present six-quart basket as all right, and it will come under the same regulations. There will also be regulations as to the thickness of the handle and the width of the strip, and the length of the handle, and every part of the material. We propose that the same uniform block shall be used by every manufacturer, and that every basket used in Ontario shall be made from that particular block, so that we will have an eleven-quart basket all over the Province exactly the same.

MR. HASTINGS: The committee considered all parts of the basket—the size of the material, the quality of the material, the number of tacks and nails, the width of the handle and the thickness of the handle, in fact every item that enters into the basket, and after a good deal of discussion that is the basket that was adopted by the committee. The committee was composed of Government representatives, representatives of the fruit growers and basket manufacturers. The only question left open at the present time is as to whether or not the manufacturers can handle it in sufficient quantities. It seems that there is a little more difficulty in making that basket with square corners than in making the former basket. My recollection is that the new basket holds exactly eleven quarts. However, that is the recommendation of the committee of which I am chairman. This basket more nearly meets all the requirements than any basket that I have been able to devise. The six-quart basket has already been adopted by the committee and also by the Niagara Peninsula Fruit Growers' Association. The flare of the six-quart basket is to be reduced to a minimum so that it will nest and bundle properly.

MR. FISHER: The size of the tacks and nails are specified. Do you allow wire stitching to be used?

MR. HASTINGS: Unfortunately for those who have machines for making baskets, they say they cannot make that basket on their machines, and that was one of the big discussions we had at our meeting with the manufacturers. The present basket is made with round corners, and they state they could not make their machines work on the semi-square corners.

A MEMBER: What will be the additional cost of this basket?

MR. HASTINGS: They said they would cost a little more inasmuch as the material used around the corners would be a little better, but the fruit growers will not mind a little additional cost if they get a first-class article. I do not know that it should cost very much more.

MR. FISHER: I was going to ask whether the fruit basket manufacturers were agreeable to get new machinery to make these baskets at their own expense.

MR. CAREY: That matter was brought up, and they seemed to be quite agreeable. They would have to get new blocks in a short time in any case. I asked them to come here and raise any objections that they might have, but nobody has turned up to make any objections, so, therefore, I think they are quite agreeable to manufacture the new basket.

THE CHAIRMAN: This matter of baskets has been hanging fire for the last two years. We held meetings first at St. Catharines and then at Grimsby, and then we held a joint meeting, and this is a result of all the deliberations summed up, and if there is any person who has any objection to that basket being made the standard basket we would like to hear from him. The basket is a quarter of an inch higher

than the other basket. The fruit growers of St. Catharines were perfectly satisfied with the old basket, but the growers west of us could not get their big peaches in the old basket, and we made a compromise with them. We expect to derive a great benefit from having a uniform basket. At the present time we are handling four different makes of baskets, and we cannot get any two makes that are alike. There is a little variation in depth and in the corners, and we have great difficulty in keeping the covers separate, and the growers also have the same difficulty. They take their baskets home and pile them up in the barn, and the hired man mixes the covers up, with the result that a great many baskets come to the shipping stations with covers an inch or a half inch too short, and in many cases the baskets are broken in putting on the covers.

MR. FISHER: I think it is the proper basket. The present eleven-quart basket not only makes it hard to pile in a car, but it has other difficulties, and I think we ought to endorse something that will be the standard all over Ontario. I think the handles should be made stronger—that is the weak part in the basket at the present time. The handles are made too thin.

MR. FLEMING: As one of those who have always advocated the deep eleven-quart basket, I wish to thank Mr. Carey and Mr. Hastings for the work they have done in connection with this matter. They have gone into the subject most carefully, and I am quite willing to consent to the reduction of a quarter of an inch. I think the sooner this is put in the hands of Mr. Johnson and the legislation gone on with, the better.

MR. ROBERTSON: I think from all appearances that this new basket is going to be a good one, and I am glad they are specifying the quality of the material so that we will have a real good basket. I think it will pay well to have a good basket even if we have to pay a little more for it. You will notice that the old basket on the table has a flaw in it, and there is a knot hole in the material, and you could not put that into any express train loaded with cherries or any small fruit and have the basket come through with its full supply, because if there is any opening the hands are sure to go in and take out some of the fruit.

MR. CAREY: I am satisfied from the class of men we have making the baskets that there will be no hold-up. I think the competition among manufacturers will take care of that.

Moved by MR. ONSLOW, seconded by DR. GRANT, that Mr. Carey's report on the basket be adopted, and that the Minister of Agriculture for the Dominion of Canada be requested to formulate legislation so as to put the result of the report into force at the earliest possible moment. Carried.

MR. CAREY: There will be no trouble as to the stock of baskets on hand at the present time. Mr. Johnson will see that the law will be framed so that the old stock can be all used up.

Now, as to boxes. We have here a Western apple box and a Canadian apple box. This Canadian apple box is made for the export trade only, but it has been used in the domestic market as well. I am about the last man to be converted to the American box, but the fact that this box has been adopted by the United States and by the apple growers of British Columbia convinces me that it should be adopted for the whole of Canada. There is only one firm in the West that is using the Canadian box; all the other apple growers are using the American box. There are two or three things in favor of the American box: it is the same length as our pear box, and for that reason the tops of all boxes would fit.

Another advantage is that we will get rid of the end pack entirely, and where

we get a flat or conical apple with the present box five tiers often comes too high, but with this box that will not be the case. Then the great advantage will be that we will not only have a standard box for Canada, but that standard will be the standard for the whole Continent of North America. I have tested out this American box for the last few weeks in every possible way, and I believe that it will be satisfactory. Here I have a three-inch apple that will pack five tiers. I have looked at thousands of these boxes in the West, and they have always come through satisfactorily. Thousands of cars of these boxes are coming into Toronto all the time. Where there is a danger of the apple being too large they leave them just a little bit looser, and there is no difficulty. Therefore, I am ready to adopt the American box as the standard for Canada.

MR. D. JOHNSON, Fruit Commissioner of Canada: I quite appreciate that the package question is one of the most contentious questions that we have to settle. Our British Columbia friends have had a great deal of difficulty in arriving at a conclusion as to what is the best box to meet their own requirements, but I think they are now nearly all decided that the Oregon or Washington box is the most satisfactory box. They are all using the American box with the exception of one firm; that is a very conservative firm and holds to the old Canadian box. If you were to ask me which of the two boxes I like best I would say the American box, because in my opinion it carries the fruit better.

In regard to the basket I can only say that we are waiting your recommendation and whatever the fruit growers decide upon will come into effect as far as I am personally concerned. This matter will have to be dealt with by the Minister, and if he approves of it we will put it through.

In our own orchard up in Lambton County we have been packing all our apples in boxes for the last three or four years, in the Canadian box, but last year we tried the Oregon box and would never go back to the other box. Mr. Hinds is here and can tell you as to that himself.

MR. HINDS: We used the Canadian box for some years and we were very reluctant to change, but we did change, and last year was the second year we used this Oregon box, and it has given us the greatest satisfaction, and we find that our clients receive the apples in better condition. We always get the end in one piece. We had a great deal of trouble one year in using the box with the end in two pieces, but we will never use that kind of box again under any circumstances.

A MEMBER: Do you get your material from the coast?

MR. HINDS: No, we get it all in Ontario, and the last two years we specified that the ends should be in one piece.

MR. BUNTING: What is the difference in the width of this box?

MR. CAREY: One half inch. It is 18 x 11½ x 10½.

Moved by ELMER LICK, Oshawa, seconded by F. LAILEY, St. Catharines, that the Fruit Growers' Association of Ontario endorse the Oregon box as the standard apple box for the Province of Ontario. Carried.

MR. CAREY: It has been stated time and again that the barrel is a package for everything except our first class fruit. I attended the Nova Scotia convention and a resolution was passed and put in my hands, and I was asked to read it at this convention. It is as follows:

"That steps be taken to secure legislation to bring our Act with regard to apple barrels in accordance with the American size and bring about a standard barrel for the whole Dominion."

When I was in the apple business, like most of the Ontario speculators, I was

quite satisfied to use the large barrel. Nova Scotia people were using a small barrel. Our trade was the export trade and we found that the people on the other side sold their apples by the pound, and they knew exactly what our large barrel held, and we got from 50 to 75 cents a barrel more than the people in Nova Scotia. We were quite satisfied to take from the farmers of Ontario a larger barrel than the law called for. The fruit growers got tired of giving more than the law called for, and I find on investigation that we have all sizes of barrels made in Ontario. The other day I saw in Montreal an Ontario barrel that only measured $27\frac{1}{2}$ inches outside. That of course was a violation of the law, but I find that there are a half dozen different sizes in the city of Toronto. The people have grown wise. The old time buyers have passed away, and the co-operative associations have been wondering why they are using the larger barrel when it is not necessary according to law. The American barrel has a $28\frac{1}{2}$ inch stave, $26\frac{1}{4}$ inches between the heads, $17\frac{1}{2}$ inches diameter at the end, and 64 inches circumference at the bulge. The reason for the outside measurement at the bulge is that the inspector can measure a full barrel. That is the barrel adopted by the United States. I have a letter from J. T. Bush, President of the Western New York Association, and he is sending me over the barrel, and he says, "I believe the better we can get our products and containers standardized, the better it will be for the industry and all concerned."

The standard barrel has already been adopted by the Federal Government of the United States, and if we adopt the same size, we will have a uniform barrel for the whole of the North American Continent. The American barrel holds about three bushels, or a little over 7,000 cubic inches. It is a well shaped barrel, and the Nova Scotia people have adopted it. One we are using in Ontario holds about three bushels and a peck, or a little over. The American barrel holds a little over three bushels.

MR. MACKLIN: I am in favor of the American barrel if it is smaller than our own. We one time used to have a two and three peck barrel, and then we had a three bushel barrel, and the one we have now takes $12\frac{1}{2}$ pecks to fill it. It certainly holds more than three bushels.

A MEMBER: I am in favor of the standard barrel. I would not like to see it made any larger. What we want is a standard barrel, and we should have the same standard as the Americans.

MR. LICK: We are under different conditions now than we were a few years ago. Our export trade has gone, and we are freer to make any change than we will ever be again. There are a number of different sized barrels. I do not know but it would be just as well to follow the Nova Scotia resolution and adopt the same barrel, and I am going to move, seconded by Mr. Grierson, that this Association adopt the American barrel as a standard barrel. Carried.

GRAPES—OUTLOOK FOR 1918.

F. G. STEWART, ST. CATHARINES.

In the outlook for grapes for 1918 we are faced at once with some serious problems. The first one is pruning. The weather has been so cold and the snow so deep, that what with the scarcity of labor, hardly one-tenth of the vines have been pruned yet. Usually, at this time of year, more than half of the pruning is

done. As an example of this state of affairs let me tell you of the labor problem in the vicinity of St. Catharines. On the Queenston and Grimsby Stone Road, from St. Catharines to St. David's (which is a matter of eight miles through mixed farming country), only one farmer has a hired man. One fruit man with a hundred and forty acre farm, has forty acres in grapes with not a vine pruned yet, nor any help in sight. I am afraid it will be well into April before pruning will be finished, if done at all. Grapes should be pruned early, so that the ends of the canes will have time to dry before the sap begins to rise. If not the sap will flow from every cut cane, and this loss or bleeding will retard the growth and make the fruit a week late in ripening.

Our second problem is, "What shall we do with our grapes should the Federal Government prohibit the manufacture of native wines?" If this should occur, then these thousands of tons of grapes will be thrown on the market. Will this not mean a glutted market with ruinous prices for the grower? In the Niagara District alone, which comprises the counties of Lincoln, Welland and Wentworth, the grape production according to the 1911 census amounted to 14,728 tons. The increase of the year 1910 over 1900 was 41 per cent. This being so, we are safe in placing the increase of 1917 over the year 1910 at 20 per cent., which would make at a conservative estimate 17,673 tons for this year. Of this sum, the wineries here claim they use 7,000 tons. Fully another thousand tons for wine-making are shipped to Quebec, Northern Ontario and Manitoba, making in all 8,000 tons for wine. For grape juice 950 tons are used, so this leaves fully 8,723 tons of grapes to be marketed in baskets. The grower must sell these at from 22c. to 25c. a basket to make a living wage, at the present high cost of labor, baskets and living generally. Everything has advanced in price. We used to pay \$28 per M (thousand) for baskets, with an additional \$1.50 per M for handling. To-day baskets are quoted at \$59 per M, with \$3 per M for handling. Let us count up the cost of selling 100 baskets at 25c. each, or \$25 worth.

Baskets (to-day)	\$5 90	per hundred
Handling baskets	30	" "
Freight	3 00	" "
Commission at 10 per cent.	2 50	" "

Total expense in marketing\$11 70

Leaving \$13.30 for cost of production and profit. Now, should 8,000 tons or more be thrown on the market this year, it will mean 800 carloads at 10 tons to the car. As the grape season extends over about four weeks, of five shipping days a week, or 20 days altogether, it will mean 40 carloads extra each day to be sold. Should this happen and prices drop to even 14c. a basket, it would leave only \$3.40 per 100 baskets for cost of production and profit. In fact, I doubt if they would all be sold.

In these figures I have not taken into account the returns from Essex, Kent, Halton or Peel, which would have given an additional 787 acres according to the census of 1911.

A clause in the Ontario Temperance Act permits the manufacture and sale of native wines. So far, this has protected the grower with his surplus of grapes which he cannot market. But should the Federal Government prohibit the manufacture of wines, what will become of the grape growing industry which we have been building up for the past forty years? Until this point is settled, I would strongly advise against the setting out of a single vine more for commercial purposes.

The above figures of quantities can be verified from the census of 1911 with the exception of those from Wentworth. In the returns, only those from the Township of W. Flamborough were given. The totals for Wentworth should be 2,095 acres, producing 10,753,198 pounds of grapes.

PEACHES—OUTLOOK FOR 1918.

HAMILTON FLEMING, GRIMSBY.

I have been asked this afternoon to give my opinion as to "The Outlook for 1918" in so far as peaches are concerned. Any remarks I may make I hope you will consider as merely an introduction of the subject. I cannot say that on an average during the past ten years I have lost money in the peach business, but I *will* say that at no previous time have I been more pessimistic as to the outlook than I am this year. The prospects for a large crop are by no means bright, and for the past four seasons the majority of peach growers in the Niagara District have been very hard hit. In 1914 the peach crop was a complete failure, while in 1915 and 1916 the crops were either light or prices low, while in 1917 the crop was in most districts light; the prices received were, however, in advance of previous years, but owing to the war, the increased cost of labor, spray, fertilizers, feed, baskets, tools, in fact everything connected with the fruit business, made the net profits on the whole less than those of previous years.

I consider it premature to say to what extent the buds have been injured by the severe frosts of the present winter, the thermometer registering as low as from 15° to 25° below zero on the night of the 4th of February, but the trees having gone into winter in good condition, the leaves falling naturally, and the wood well ripened before the severe frosts came, the results may not prove so disastrous as might be expected, and the fact that we have had it steadily cold throughout has prevented any premature swelling of the buds. From tests made by myself and others up to 11th February, there appears to be a fair showing of healthy buds, with the exception of Elbertas, which have suffered from frozen buds to quite a large extent.

At the time of the severe frost on the 4th of February there was fortunately a good covering of snow on the ground which would probably save the trees from root injury. Unfortunately, however, about the 12th December the thermometer fell to 12° below zero while there was not any snow on the ground. It is, of course, too early to say if any trees have been killed in this way.

The outlook regarding the proper distribution of the peach crop is still in a most unsatisfactory condition so far as the Niagara District is concerned, and is likely to remain so until a central organization has been formed.

The transportation outlook at the present time looks hopeless. The supply of cars, should there be a large crop, would be wholly inadequate. This might be remedied to a large extent by the more extensive use of motor trucks. Unfortunately, the road between Hamilton and the Niagara River, linking up with the Toronto-Hamilton Highway, is not in a fit condition for heavy traffic, but it is to be hoped the Provincial Government will, as a war measure, at once take over this trunk road as a Provincial Highway, as the food products grown in this district are enormous.

The outlook in regard to labor, at least so far as male help on our farms is concerned, is a problem which will have to be solved by the Director of Agricultural Labor. In regard to female help for the lighter work of picking and packing of peaches, I feel sure, judging from the loyalty which the women of Canada have previously shown, that they will again help us, more especially as the Food Controllers of Canada and the United States have pointed out that fruit is a necessity and should take the place locally of less perishable foods which are required for export.

Thanks largely to the very thorough manner in which the Government officials and their inspectors have carried on their work, "Little Peach" and "Yellows" are well under control, and as every up-to-date fruit grower now sprays his orchard, little is to be feared from San José Scale.

The fact that the fruit inspectors are now devoting more of their time to the inspection of peaches put on the market, has been, and will be, a great encouragement to the careful shipper. In some cases of late, peaches have been put on the market without being sorted or graded, simply "tree run" in what is known as the "heaped bushel basket." If this practice continues or increases in 1918 it will be detrimental to the peach market, as no matter how careful pickers may be, peaches not fit for consumption will get into the baskets.

I did not intend to say anything regarding the question of tariffs on peaches, but as the matter came up at yesterday's session, and as it is a matter of the most vital importance to peach growers, I will take this opportunity of saying that, in my opinion, were anything in the nature of reciprocity in peaches with the States sanctioned by the Government, Canada would be swamped with peaches. New York State and Michigan alone grow ten acres of peaches to one grown in Ontario, and their peaches are on the market before ours, and were any reduction on the present duty made, the outlook for 1918 would be of the gloomiest nature, and it would in all probability kill the peach industry in Ontario.

MR. FLEMING: I think the work that has been done by the Food Controller, more especially the Fruit and Vegetable Department, will help us very much, and we will be able to organize more thoroughly than we otherwise would have been able to do. I have great hopes that this licensing of the wholesale dealers in fruit will be a benefit to our industry.

I wish to take this opportunity of thanking Mr. Hodgetts, who at all times has given me any information in connection with fruit growing, and also Mr. Palmer of the Experimental Farm. My knowledge of peach growing, such as it is, has been got very largely from attending associations such as this, and from the help I receive from these various departments.

PLUMS—OUTLOOK FOR 1918.

A. ONSLOW, NIAGARA-ON-THE-LAKE.

What is the prospect for the coming season—for the man who is interested either as a commercial or family garden producer?

As the seasons change from spring to fall, so each and every year brings with it varied conditions of which no man can prophesy, and in every climatic change the coming next year's crop is affected through the twig, leaf and bud growth.

Only through our own endeavors, in the nursing, spraying and cultivation can we look for the answer of "What is the Prospect?" As you have done by the tree, so will nature repay you in its fruit.

When we speak of prospects it behooves us to remember that we are not a small community under similar conditions, so I must speak generally on my own locality; but the underlying facts are concrete in all districts where fruit is grown.

GENERAL PROBABILITIES OF TRADE.—There has been and there will probably continue an increasing shortage of the main requirements of food, and this must and can be supplemented by an increased production of fruit for the period of 1918-19.

Of all the fruits which can be put into economical space and are sure keepers of universal flavor, the plum is supreme. We may be assured that its reputation will expand; the public demand increases as butter and its substitutes grow scarce and advanced in price.

MARKETS LOCAL.—This is the ideal destination for all fruits and a careful canvass of your own locality will in many instances open up a mine of possibilities in disposing of your fruit. The extra and increasing cost of packages, the numerous charges of freight, commission and cartage are eliminated, and last and not least, the perfect condition in which the fruit is delivered to the consumer, are all factors pointing to the local market, as the ideal.

CENTRAL.—That which lies outside of your team radius the point to which you and many others will ship either on direct sale or consignment and ultimately resold. The medium of distribution as at present known to the most of the commercial growers is subject most to abuse, but is an indispensable method of distribution whose advantages and disadvantages lie often in the hands of the shipper, who too often beguiled by the siren voice of a circular letter, ships kindly he knows not where.

WESTERN.—The demand in the Western part of Canada for fresh fruit has in the past created a trade of large dimensions whose chief advantage to the growers has been the stabilizing of the Eastern prices, by the consumption of the surplus quantity of fruit, especially in those years when there might have been a temporary glut; by relieving the eastern market it has stabilized the otherwise fluctuating prices; the bane of both dealers and growers. At the present high rate of transportation and the longer period in transit makes this market appear far distant, and a risky proposition, for the fruit is generally ungraded, and in this state cannot compete with the wrapped and boxed Oregon and Washington produce. They have learned that the more distant the market, the better must be the quality to pay expenses and show a profit.

CANNING.—What the canners know they do not generally give away. But we may arrive at a safe conclusion that the market will be bare of plums in the near future and that an appreciable increase in the quantity of plums required for the trade will be in evidence this year.

SUMMING UP.—The prospect of the distribution and the ultimate cash returned to the producer was never better than as it stands to-day.

"What of to-morrow?" What we have now we cannot change, but we may and should be governed by the experiences of the past, and plan for the business of to-morrow. Firstly, by careful review of the different varieties we are going to plant. Their ultimate destination—the local, central and canning trade—what we are planting for, and what varieties will be in demand for these markets in years to come. Secondly, by a careful study of the soil conditions and availability

—for it is granted that we will go on planting and not be discouraged. In availability I mean that fruit requires the best of your soil and care, and the nearer to view the more likely to be worked, sprayed and inspected. Your best land is none too good. Plums will grow in stiff clay, but as the fruit is largely water an available supply of moisture is required to bring the crop to maturity. A sun-burned clay means a big drop in the fruit and sometimes a complete loss.

The plum well grown and sprayed is a long keeper if picked at the right stage, but once past that point deteriorates rapidly. It is a safe rule that they should be picked early.

In the process of jam making it is essential that the fruit is *not ripe*, as the chemical changes in its composition destroy the jelly power.

There are some points to be remembered for this year's crop. Let us try to produce an abundance of the best quality of fruit, that whereas in the past, we have been busy and otherwise occupied, and have allowed nature to take its toll on our neglect and carelessness, this year we have the added stimulant that our country and those beyond the seas are pleading that we do not waste; and in waste is meant, that we do not allow to go to waste by either *over-production*—meaning small and imperfect fruit—*Cureulio* stings, and rot or over-ripeness. The remedies are in the first place:—

1st. Thin and thin again.

2nd. Spray and spray again.

3rd. Early picking.

May we be true to our trust, providing for those near at home and far away, with the satisfaction that we have done our duty to the best of our ability.

PEARS—OUTLOOK FOR 1918.

H. T. FOSTER, BURLINGTON, ONTARIO.

In speaking of the outlook for pears for the season 1918, I would not pretend to make the prediction that the crop would be an abundant one of good clean fruit, and that it would command a very high price.

Neither would I discourage you by saying that the trees will be damaged and the crop of pears will be light and of poor quality owing to the unnatural weather conditions of last summer and fall, and the steady cold weather of this winter, for I will venture to say that never since pears have been grown commercially have we had as much severe cold weather. But I would say to you fellow fruit growers of Ontario, and especially to the Commercial Pear Growers, to stay on the job.

Although you may feel discouraged by present conditions, of labor, packages, insect pests and general high cost of production, with perhaps a limited market and at times a prospect of prices not sufficient to cover production and leave a decent profit, I say take the best possible care of your orchards, fertilize and cultivate the ground properly, prune your trees as much as necessary, spray as thoroughly as you know how; pick and pack and sell your fruit as intelligently as you can, and I believe that the results will be satisfactory, for there is always a demand for real good fruit well packed. Although at the present time our export trade is closed, yet there is a fairly good local market and also the Western market, and I think it would be a mistake for a grower who has his pear trees grown or

bearing to neglect them at this time of the year, and expect to take them up again when things become more settled.

Unfortunately fruit trees and the fruit crop are such that they need attention all the time, and when a season of failure comes we have to bear with it, and when a season of success and profit comes we ought to be in a position to enjoy the benefits. Or, in other words, "We should have our dish right side up when the shower falls."

In summing up, the prospect for 1918 is reasonably good. If the trees have come through the winter all right—and I think they have as far as I have seen—the buds appear all right now—it is reasonable to expect as the 1917 crop was very light, that the 1918 crop will be a good average, and as sugar is likely to be a little more plentiful, the canners and consumers generally will use more pears, and at good prices.

The question of soils and varieties of pears to plant is not a part of this subject, but may come up in discussion if you wish.

CHERRIES—OUTLOOK FOR 1918.

W. A. MITCHELL, PORT ELGIN.

We are practically new in cherry growing in our part of Ontario, which is in Bruce County, on Lake Huron. We are only about six years old in that business, and we, therefore, have not very much to tell you on the subject.

The outlook for 1918 is not too bright for us. We have had considerable cold weather this winter, the coldest being down to 32° below zero, but one advantage has been that we have not had any extreme changes. We have not had any soft weather from Christmas until last Monday, and that is one thing I think will be in our favor for the 1918 crop.

Our points of shipment are along the railroad lines from Port Elgin to Palmerston and Stratford, and at odd times we send as far as Guelph. Our market is not very large, and our plantations are just in sight of good annual bearing. We hope in a few years to have large shipments made from Port Elgin. Some of our neighbors have larger plantations than we have, but our shipping facilities are not the best.

One thing that is bothering us in the district at the present time is the Shot Hole Fungus, and if we do not get some remedy we will be down and out. Last year the leaves practically went off all our trees except those on the outside row. I would like to have some information on how we can control that Shot Hole Fungi. We have a little of the Black Knot, but we keep it under control in our orchards.

A MEMBER: Spray early with Bordeaux mixture. Wash down first with two pounds of bluestone to forty gallons of water. Do that before the disease breaks out, and then if you find any of it put on the Bordeaux mixture.

SMALL FRUITS—OUTLOOK FOR 1918.

LEONARD HARRISON, WATERFORD.

I have been asked to say a few words to you this afternoon on the outlook for small fruits during 1918. We are living in the most unusual times ever experienced. We are up against conditions never before dreamed of, and I have yet to

find the farmer who is not willing to do his utmost to produce during 1918, though it necessitates greater efforts than he has before been asked to put forth.

There is one danger which I can foresee in the willingness of growers, and that is that they may be tempted to over-step the bounds of physical endurance and put in more than they can properly look after. This must not be. Strawberries, as you know, entail a vast amount of labor, and no crop gives the grower better remuneration and will pay the grower more handsomely for all the work he puts in; and, on the other hand, no crop will give greater disappointments than a patch which has not received the care and generous treatment which it deserves. Make up your mind to plant what you can look after. You will produce more for the country with a small acreage well cared for than you will with double the acreage only half done.

Alluding to the prospects for 1918, we may admit that we have some cause to be somewhat optimistic. The berry patches in most districts were planted last spring under ideal conditions. We were able to set our strawberries out early and they became well established before the drought set in.

From the Waterford District we ship about one million boxes of strawberries and about one-half that amount of raspberries, and our patches are looking well though we have a reduced acreage, and perhaps rather thinner rows.

The prices this year are bound to run high. Every berry we grow will be wanted, and it is up to us to put our fruit on the market in better shape than we have ever done before. My reasons for looking for high prices are that the demand will be great for both raspberries and strawberries for canning and preserving purposes, and while the importation from the States is likely to be heavy, yet the supply is not likely to exceed the demand owing to the enormous export demand for jams and canned fruits. Canada and the States are practically the only countries able to fill this demand. With the few ships available for transportation and our nearness to the Mother Country means that the bulk of the goods must come from this continent. Australia, no doubt, will ship a certain amount, but her distance and the extra risk to be run puts her out of commission as an active competitor.

Domestic consumers of berries will also show an increase—the urgent need of conserving every ounce of food will make the matter of home canning of special importance. We must also look for a probable increased consumption of all fruits during their respective seasons, owing to the need of conserving as much bread, meat and other food stuffs as possible.

I anticipate a further reduction in the acreage of raspberries. For the last few years we have found this crop to be anything but a really paying one. The factories have not been able to give us a remunerative price, which has caused many growers to do away with their patches; also the increased difficulty in getting them picked and the higher prices which the grower has had to pay to get them picked has discouraged many from planting. I cannot see that the future should warrant any man to desist from planting, as we are not likely to see the low prices prevail again for some time. It is true that the States have been able to give our preservers a cheap raspberry pulp, and it has yet to be proved to me that this has been a paying business for our neighbor, and who now with paid labor getting less plentiful is not likely to continue in a business when other products are likely to prove more profitable unless she receives a substantial increased return. Perhaps more might be done by co-operation between our associations this side and those across the border to our mutual advantage.

Some of us are apt to groan over the labor for 1918. As far as the picking is concerned, we shall get the fruit picked and must be prepared to pay more, but to get the help is the most important. There is the Women's National Service Organization, which last year we tried at Waterford. Many farmers held back from taking advantage of this help. They felt certain that those ladies would never stand a hot day and would give in too readily. Let me tell you right here that those ladies rendered us most valuable services. They were a credit to their organization, and a credit to themselves, and that, in spite of the hottest summer we can remember. Don't despise the help that those ladies are again offering the grower this year. Make all the use you possibly can of them, and encourage the movement which is patriotic and national. It may interest some of you to know that our village merchants are considering closing their stores three days a week while the berry crop is on and turning out to help pick. This will release quite a few hands to help. If this spirit prevails throughout the fruit sections, much will be done to relieve a possible shortage of picking help.

It may be possible that some one in the audience may be able to give me the benefit of their experience in a matter that we had difficulty over this summer. We made a contract for a certain number of berries to go to a jam factory, and this year, owing to the bad weather, we were not able to fill our contract. Every firm with the exception of one, paid for the berries they received, but one firm in Hamilton up to the present time has refused to pay the balance of the account, claiming a counter claim for shortage of delivery. We never bought any berries from anybody else, and we never supplied anybody with berries except those we had contracts with.

THE CHAIRMAN: I see no reason why they should not pay. Weather conditions were responsible for your not being able to supply them, and I do not believe any court in the world would hold you responsible.

MR. HODGETTS: In case we secure a heavy crop of apples, and if any fruit growers in the Province wish the help of young girls for packing the apples, our Branch will be glad to train girls in any centres for this work. We have done that for our own use for shipping apples overseas, and we have had splendid success with this help.

MR. ONSLOW: I would like to move a vote of thanks to the Minister of Agriculture for the general oversight he has given our work in this country, and to Mr. Hodgetts and the members of his Department who have helped us so splendidly during the past season.

The motion was seconded by MR. TERRY, and carried with applause.

REPORT OF RESOLUTIONS COMMITTEE.

The report was presented by Dr. A. J. Grant, Chairman.

Your Resolutions Committee beg to submit the following:

1. Whereas, the Fruit Growers' Association assembled in convention at Toronto, February 14th and 15th, 1918, realize that our country is in the midst of the greatest war of history and that every effort and every necessary sacrifice must be made to bring about a successful end of the conflict: Therefore be it resolved that we as representatives of the fruit growing interests of the Province of Ontario do lend our most earnest support to our chief executive and his able assistants, and be prepared to do our utmost to stimulate production and conservation of food and in any other way lend our aid to the furtherance of the cause.

Be it further resolved, that the Secretary of the Association be authorized and hereby instructed to send copies of these resolutions.

2. Resolved, that the thanks of this Association be tendered to the Minister of Agriculture at Ottawa for prompt action in the appointment of a traffic expert in connection with the Department of the Dominion Fruit Commissioner.

3. That the Federal Government be requested to inquire into the possibility of assisting in the conservation of the fruit production by either assisting or organizing the evaporating industry in the various fruit producing centres, or in the further development of the jam and canning industries of Canada.

4. Resolved, that the thanks of this Association be tendered to the young women of this Province who so ably have assisted in the harvesting of our fruit crops.

5. Resolved, that the thanks of this Association be tendered to Mr. Geo. E. McIntosh for his very efficient services during his tenure of office as Traffic Expert.

6. Whereas it is of the utmost importance to do everything to increase production, we urgently ask the Government to remove the duty from all spraying machinery used for the spraying of orchards, as the quantity and quality of the fruit products depends entirely on the care that is given them. With the scarcity of labor we must have efficient machinery to work with. The present duty added to the increased price of labor and material makes the present cost of spraying machinery a hardship for the average grower.

7. Moved by MR. RITTENHOUSE, seconded by MR. BUNTING, That we, the Fruit Growers, assembled in convention, desire to express our appreciation and approval of the efforts of the Department of Education in allowing high school boys and girls to go out and work on the farms throughout the Province during the closing session of the spring school term, and thereby very materially aid the farmers in their efforts to maintain and also increase food production, and in view of the fact that the month of September being a rush month, especially on the fruit farms, we respectfully ask that the Department of Education see their way clear to excuse these boys and girls from returning for the coming fall term before October 1st, at least, besides allowing them to leave school in April as in the past year.

MR. RITTENHOUSE: I may say that as a fruit grower we very much appreciate this move on the part of the Board of Education. They have in the past allowed these boys to go out in the early spring months, which was not of as much importance in my neighborhood as the fall months would be. We have no objection to them allowing the boys and girls to finish their spring term if they will excuse them a little later in the fall. That is the idea I want to cover.

A MEMBER: I think the idea of the movement was to assist in getting into the ground a good big crop, and then the men could take care of that crop themselves in the fall.

THE CHAIRMAN: I think it would be a good idea to let the boys and girls come early and stay late.

MR. RITTENHOUSE: I had a boy who was a very good worker, and I kept that boy all during the month of August because I wanted him in September, but he had to return to school on the 1st of September. I telephoned the Department and they could not give me any information. I did not need him very much in August.

SPCL SB 354.6 C2 F783 1917

